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Abstract:
This dissertation examines the emergence and development of sound installation art, an under-recognized tradition that has developed between music, architecture, and media art practices since the late 1950s. Unlike many musical works, which are concerned with organizing sounds in time, sound installations organize sounds in space; they thus necessitate new theoretical and analytical models that take into consideration the spatial situated-ness of sound. Existing discourses on "spatial sound" privilege technical descriptions of sound localization. By contrast, this dissertation examines the ways in which concepts of space are socially, culturally, and politically construed, and how spatially-organized sound works reflect and resist these different constructions. Using an interdisciplinary methodology of critical spatial analysis and critical studies in music, this dissertation explores such topics as: conceptions of acoustic space in postwar Western art music, architecture, and media theory; the development of sound installation art in relation to philosophies of everyday life and social space; the historical links between musical performance, conceptual art, and sound sculpture; the body as a site for sound installations; and sonicspatial strategies that confront politics of race and gender. Through these different investigations, this dissertation proposes an "ontopological" model for considering sound: a critical model of analysis and reception that privileges an understanding of sound in relation to ontologies of space and place



UNIVERSITY OF CALIFORNIA, SAN DIEGO

Sound Art and Spatial Practices:
Situating Sound Installation Art Since 1958

A Dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy

in

Music

by

Gascia Ouzounian

Committee in charge:

Professor Anthony Davis, Co-Chair
Professor Jann Pasler, Co-Chair
Professor Adriene Jenik
Professor George Lewis
Professor Lev Manovich

2008

The Dissertation of Gascia Ouzounian is approved, and it is acceptable in quality and form for publication on microfilm:

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Co-Chair

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University of California, San Diego

2008

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ACKNOWLEDGMENTS

I am deeply grateful for the support of my committee, who provided invaluable guidance at every stage of this work. Jann Pasler, Anthony Davis, George Lewis, Adriene Jenik, and Lev Manovich inspired me to think and write critically; without their advice, encouragement, and good humor this work would have been far less rewarding.

Jann Pasler helped create an environment at UCSD that fostered serious debate, collaboration, and interdisciplinarity; her vision for a critical studies program fueled my work in countless ways. Anthony Davis consistently encouraged me with imaginative and sensitive advice; I am grateful for our conversations and collaborations throughout the years. Like many of my colleagues, I feel extremely fortunate to have studied with George Lewis, who profoundly changed the way I understand music. His extraordinary contributions to the field inspire and enable my work in every regard. Lev Manovich's seminars on new media provided the impetus for my initial research in sound installation art; I am grateful for his early and continued support, generous advice, and enthusiasm. Adriene Jenik has awed me with her remarkable energy and passion in her work and dedication to the

larger community of artists and students at UCSD and beyond. She encouraged me to take directions in my work that would have otherwise been beyond my reach.

I am grateful for the advice and support of senior colleagues and mentors, including Denise Lupien, Ellie Hisama, Anne Seshadri, Franziska Schroeder, Michelle Hilmes, Jonathan Goldman, Zeinabu Davis, Don McLean, Bruce Pennycook, Todd Reynolds, Zack Settel, Eve Egoyan, David Rokeby, Steve Schick, Carol Hobson, Andra McCartney, Michael Alcorn, and Ellen Waterman. Charles Curtis's mentorship and friendship have been invaluable; he guided me in many of my projects, and supported my work in the broader community. I am also grateful to his family, for their friendship and kindness.

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Louise Walker, Lauren Wooley, Leila Mouammar, Luciane Cardassi, Jeff Perkins, Maïa Cybelle Carpenter, Kara Lynch, Anna Friz, Drew Boles, Erik Hove, Kelly Hennigan, Caroline Caviness, Rich Tayloe, Emily Dufour, Geoff Gartner, Roberto Strongman, Jin Ge, Sean Griffin,

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My past and present colleagues in the Critical Studies/Experimental Practices area and in the Department of Music at UCSD inspired me with their talents and vision. I am grateful to them, and to the staff at the Department of Music at UCSD, for their tireless work on behalf of students.

VITA

EDUCATION

University of California, San Diego, Ph.D. in Music (critical studies/experimental practices)

- •Dissertation: "Sound Art and Spatial Practices: Situating Sound Installation Art Since 1958"

- •Dissertation committee: Jann Pasler and Anthony Davis, co-chairs (Music, UC San Diego), George Lewis (Music, Columbia University), Adriene Jenik and Lev Manovich (Visual Arts, UC San Diego)

McGill University, Master of Music, *High Distinction* (solo performance), 2001

McGill University, Bachelor of Music, *High Distinction* (honors in computer music), 2000

McGill University, Bachelor of Music, *High Distinction*(major in performance), 2000

FELLOWSHIPS, GRANTS, and DISTINCTIONS

Social Sciences and Humanities Research Council (SSHRC). 2-year post-doctoral research fellowship at Concordia University, Montreal. 2008-10 (declined).

Banff Center for the Arts. Full fellowship for long term artist residency. Fall, 2007 and Winter, 2008.

Carnegie Fellow. One of 3 violinists selected by international audition to participate in a 2-week residency and concert series with Yo-Yo Ma and the Silk Road Ensemble at Tanglewood, MA, and Carnegie Hall, N.Y.C., 2006

UCSD *Graduate Student Teaching Fellowship*, one of 8 fellowships awarded campus-wide for excellence in teaching, 2006.

Canada Council for the Arts *Grants for Individual Artists*, to create works for violin and electronics under the direction of violinist-composer Todd Reynolds in N.Y.C., 2004-05.

UC *University Humanities Fellowship*, one of 4 four-year doctoral fellowships awarded campus-wide, 2001-05.

UCSD Center for Humanities *Dissertation Fellowship*, competitive fellowship, 2005.

UCSD Department of Music *Dissertation Grant*, 2005.

UCSD Center for Research in Computing and the Arts *Graduate Student Researcher*, 2002-04.

UC Institute for the Arts *Special Projects Grant*, co-recipient with Teknika Radica for co-organizing symposium "Powering Up/Powering Down" (critical perspectives on media arts), 2003.

McGill University *Scholarship for Academic Performance*, 2000-01

McGill University *Concertmaster chair*, Contemporary Music Ensemble (by competitive audition), 1999-2001

RESEARCH

Articles in Peer-Reviewed Journals

"Contemporary Radio Art and Spatial Politics: The Critical Utopias of Anna Friz." *RADIO Journal: International Studies in Broadcast and Audio Media*, forthcoming (2008).

"History, an Exit Strategy: The RetroFuture Fabulations of Kara Lynch." *The Journal of the Society for American Music*, forthcoming (2008).

"Visualizing Acoustic Space: The Story of *Poème électronique*." *Revue Circuit* 17/3: 45-56 (2007).

"Embodied Sound: Aural Architectures and the Body." *Contemporary Music Review* 25/1-2 (February/April 2006)*: 69-79.*

Articles Presented at Conferences

"Conceptual Sound Forms: The Event, Action Music, and Performance-Sculpture, 1958-1980."
•*Performance Studies International*, New York University (November 8-11, 2007).

"Imagined States: Anna Friz's Radio Utopias."
•*Feminist Theory and Music:* "Speaking Out of Place," Montreal (June 6-10, 2007).

"Conceptual Sound Forms: The Event, Action Music, and Performance-Sculpture, 1958-1980."
•*GSIM: Theorizing Performance/Performing Theory*, CUNY (April 21, 2007).

"Embodied Sound: Aural Architectures and the Body."
•*Columbia Music Scholarship Conference*, Columbia University (February 3, 2006).

"Becoming Media: Post-War Electronic Music and the Politics of Informationalism."
•*Society for American Music*. Eugene, Oregon (February 16-20, 2005).

Guest Lectures

"Performing Sound Sculpture."
•University of San Diego, Department of Music, Department of Visual Art (May 2007).

"The Problem of Being Together: Strategies for Intermedia Collaboration."
•Concordia University, Department of Communication Studies (January 2007).

"Sound Installation Art and Social Bodies."
•McGill University, Department of Music (October 2005).

"Sound Installation, Interactivity, and Social Spaces."
•Columbia University, Department of Music (March 2005).

TEACHING EXPERIENCE

Lecturer (Department of Music, UC San Diego)

•Contemporary Music: Sound Art (Summer 2006)
Lower-level undergraduate course. Historical survey of 20th and 21st-century music and sound art. I assigned creative and critical work each week (compositions and journal entries). Student compositions were presented in a final concert. Lecture topics included: Futurism, noise, serialism, Minimalism, soundscape, improvisation, sound installation, intermedia music, and interactive and networked sound.

•Women in Music (Winter 2006 and Fall 2006)
Upper-level undergraduate course. Historical survey of women in popular and art music, with a focus on critical media analysis. I assigned two critical writing/research assignments, for example comparing representations of gender and sexuality in popular and feminist music magazines. Lecture topics included: women and the musical canon, feminism, gender, sexuality, race, technologies, power, and community. Examined the music of women working in: Western art music, the blues, rock, punk, hip-hop, riot grrrl, world music, electronic music, and improvised music.

Teaching Assistant (Department of Music, UC San Diego)

- Popular Music: Techno (Winter 2007)
- Women in Music (Fall 2005)
- Jazz Analysis and Transcription (Spring 2004)
- Popular Music (Winter 2004)
- The Blues: An Oral Tradition (Fall 2003)
- Women in Music (Spring 2003)
- Popular Music: The Beatles (Winter 2003)
- Contemporary Music (Fall 2002)

RECORDINGS

Audio

Violinist. CD. Morton Feldman, "For Clarinet and String Quartet." With Anthony Burr, Brian Chen, Charles Curtis, Graeme Jennings. *The Worker's Institute*, New York City (forthcoming).

Violinist and violist. CD. La Monte Young, "Trio for Strings." With Charles Curtis, Reynard Rott, Erik Ulmann. *MELA Foundation*, New York City (forthcoming).

Violinist. CD and DVD. Charles Gaines, Edgar Arcenaux, and Sean Griffin, "Snake River" film-and-music installation. Redcat Theater, Los Angeles (2006)

Violinist. CD and DVD. Catherine Sullivan and Sean Griffin, "The Chittendens Suite" film-and-music installation. Vienna Secession Museum and London Tate Modern (2006).

Violinist. CD. *Skeleton Key Orchestra*. Group improvisations directed by Nathan Hubbard. *Circumvention Records*, San Diego (2004).

Composer and producer. Interactive CD-ROM. *Murmures*. Documentation of six of my compositions for performers, new media, and live electronics. Presented by the artSounds ensemble, Montreal (1999).

Film and Video

Music consultant. Film (18 min.) *The Plunge* (2007). Department of Visual Arts, UCSD. Producer and director: Jocelyn Jacobs. Composer: Drew Boles.

Producer and director. Video (28 min.) *People On The Ground* (2005). Center for Research in Computing and the Arts, UCSD.
•*Honorable Mention*: Al-Awda and Alternate Focus Film Competition (2006).

Music director. Film (14 min.). *Miracle Mile*. (2004). *First Generation Films*, Los Angeles. Producer: Christina Piovesan. Director: Dong Hyeuk Hwang.
•*Winner*: Student EMMY Award for Best Producer (2005).

ENSEMBLES

Founding member: 2005-07. Bye Bye Butterfly. Intermedia music quintet.

Treble Violinist: 2005-07. The Hutchins Consort. Nationally touring violin octet.

Concertmaster, guest soloist: 2003-2004. UCSD Chamber Orchestra.

Principal violinist, guest concertmaster: 2003-2004. La Jolla Symphony.

Guest concertmaster. March 2004. S.E.M. Ensemble, New York City.

Founding member: 2002-04. Teknika Radica. Coalition of women scholars and artists committed to a critical engagement with media arts. Co-organized events including a film festival and "Powering Up/Powering Down" critical media arts symposium (Jan. 2004) featuring over 60 international artists and scholars.

Founding member and director: 1999-2001. artSounds. Large intermedia ensemble.
•Reviewed in *MUSICWORKS*: "A uniquely intriguing group […] A triumph for Miss Ouzounian [who] was remarkably creative as a composer and performer."

Concertmaster: 1999-2001. Contemporary Music Ensemble, McGill University.

SELECTED PERFORMANCES and FESTIVALS

Banff Centre. "Love Bites." Intermedia recital of new Canadian music. With Luciane Cardassi, piano and Maïa Cybelle Carpenter, video. Works by Keith Hamel, Chantale Laplante, Linda Catalin Smith, and Bruce Pennycook (Feb. 2008)

Banff Centre. Intermedia performance of "For John Cage" for violin and piano by Morton Feldman. With Luciane Cardassi, piano. Video by Gascia Ouzounian (Dec. 2007)

International Computer Music Conference. Performance of "Panmure Vistas" for violin and computer by Bruce Pennycook. ICMC 2006, New Orleans (Nov. 2006)
•Reviewed in *Computer Music Journal*: "The quality of the instrumental performance was an eye opener for the computer music community , which has to realize the importance of the oneness between the performer's body and the instrument […] This was an outstanding performance."

Carnegie Hall. 2-week residency and 4 concerts of new music with Yo-Yo Ma and the Silk Road Ensemble. Tanglewood, MA and N.Y.C. (Sept. 2006)

MELA Foundation. La Monte Young, "Trio for Strings" (1958/2005). World premiere and recording of revised version under the direction of the composer. Germany and N.Y.C. (Summer 2005)

UCSD (2001-05). Performances with visiting artists including Lisle Ellis, Earl Howard, Anne LeBaron, and Wadada Leo Smith, and chamber ensembles including *RedFish BlueFish* (percussion), *NOISE* (new music), *La Banda Bastarda* (early music), and *Episteme* (improvisation)

Bang On A Can Summer Institute of Music. Participant in new music festival. Mass MOCA. (July 2002)

Sinfonia Toronto. Guest soloist in Ludwig van Beethoven, "Triple Concerto." Toronto (July 2001)

Banff Center for the Arts. Participant in summer chamber music program. Banff, Alberta (July 1999)

OTHER PROFESSIONAL EXPERIENCE

Co-editor of conference proceedings, session organizer. "Sound Installation and Situated Sonic Practices." International Conference on Architecture/Music/Acoustics. Ryerson University (June 2006)

Media Archivist. UCSD Center for Research in Computing and the Arts (Spring 2005)

Head Mentor. La Jolla Music Society/MIT Hyperscore Research Group. Teaching computer-aided composition to local communities and training mentors (Summer 2004)

Scholar. Artsbridge. Teaching music in elementary schools as part of an arts outreach program (Spring 2003)

PROFESSIONAL ASSOCIATIONS

Member

- Society for American Music (SAM)
- American Musicological Society (AMS)
- College Music Society (CMS)
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- Armenian

ABSTRACT OF THE DISSERTATION

Sound Art and Spatial Practices:
Situating Sound Installation Art Since 1958

by

Gascia Ouzounian

Doctor of Philosophy in Music

University of California, San Diego, 2008

Professor Anthony Davis, Co-Chair
Professor Jann Pasler, Co-Chair

This dissertation examines the emergence and development of sound installation art, an under-recognized tradition that has developed between music, architecture, and media art practices since the late 1950s. Unlike many musical works, which are concerned with organizing sounds in time, sound installations organize sounds in space; they thus necessitate new theoretical and analytical models that take into consideration the spatial situated-ness of sound. Existing discourses on "spatial sound" privilege technical descriptions of sound localization. By contrast, this dissertation examines the ways in which

concepts of space are socially, culturally, and politically construed, and how spatially-organized sound works reflect and resist these different constructions.

Using an interdisciplinary methodology of critical spatial analysis and critical studies in music, this dissertation explores such topics as: conceptions of acoustic space in postwar Western art music, architecture, and media theory; the development of sound installation art in relation to philosophies of everyday life and social space; the historical links between musical performance, conceptual art, and sound sculpture; the body as a site for sound installations; and sonic-spatial strategies that confront politics of race and gender. Through these different investigations, this dissertation proposes an "ontopological" model for considering sound: a critical model of analysis and reception that privileges an understanding of sound in relation to ontologies of space and place.

CHAPTER ONE

SITUATED SPACES

1.1 Traces

Audiences at a sound-and-light spectacle at the 1958 Brussels World Fair—where the predominant theme is nuclear disarmament—are overcome by the feeling that they are being bombarded by sound. Electronic whines, human shrieks, moans, and sirens assault them from every point inside a fantastical building whose walls are lined with hundreds of loudspeakers. Edgard Varèse, the composer of this unearthly music, claims that for the first time in his life, he can "literally hear [his] music projected into space!"[1] Someone in the audience describes the experience as a "modern nightmare."[2]

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1 Jonathan Strawn, "The *Integrales* of Edgard Varèse: Space, Mass, Element, and Form," *Perspectives of New Music* 17/1 (1978): 141.
2 Marc Trieb, *Space Calculated in Seconds: The Philips Pavilion, Le Corbusier, Edgard Varese* (Princeton: Princeton University Press, 1996), 217.

Mere steps away from this spectacle, members of a radical European art group calling itself the *Situationniste Internationale* protest a gathering of prominent art historians who are invited to speak at the Fair. The artists throw leaflets containing a manifesto at the historians and at passersby, occasionally launching these leaflets out of moving cars. The manifesto calls on the historians to abandon the idea of individual art works, and instead embrace the idea of art as social practice. Over the next decade, these artists develop one of the most enduring theories and practices of radical urbanism; it rests upon the idea that "space" is not an absolute or natural phenomenon, but instead a product of social, political, and economic relations.

Also in 1958, Marshall McLuhan, the world's most celebrated media theorist proposes that there are two distinct, binary perceptual structures that govern the imagination of literate and non-literate societies. He designates these structures, respectively, as "visual space" and "acoustic space."[1] McLuhan argues that, whereas visual space structures Western thought—and is linear, ordered, and definite—acoustic space structures the mind of the primitive or

[1] See Edmund Carpenter and Marshall McLuhan, "Acoustic Space" in *Explorations in Comminucation: An Anthology*, ed. Edmund Carpenter and Marshall McLuhan (Boston: Beacon Press, 1960).

primordial being. He proposes that, unlike visual space, acoustic space is senseless, directionless, and horizonless.[2]

Concurrently, composers and sound engineers working within emerging electro-acoustic music traditions develop new technologies that attempt to render unto this chaotic acoustic space that missing horizon. They develop devices like the *pupitre d'espace*, which allows a performer to route pre-recorded sound to multiple loudspeakers during a live performance. Such devices appear to give sound a vanishing perspective, a linear ordering, something approaching definite boundaries. These devices effectively render acoustic space "visual."

Still in 1958, George Brecht, a professional chemist and self-taught artist living in New York City, organizes an exhibit called *Toward Events* at a local gallery. Paradoxically, the "events" on display are not events in the typical sense of the word, but instead objects, which are accompanied by the direction "to be performed." Brecht considers them to be "little enlightenments," and develops a theory of Events that

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[2] Marshall McLuhan, "Five Sovereign Fingers Taxed the Breath," in *Explorations in Communication: An Anthology*, ed. Edmund Carpenter and Marshall McLuhan (Boston: Beacon Press, 1960), 207.

is equal parts rooted in quantum physics and Buddhist philosophy.[3] The genre of Event performance that ensues from his experiments has profound effects upon subsequent traditions of Performance Art, Conceptual Art, Intermedia Art, musical performance, and sound sculpture; each of these reflect a renewed understanding of the relationships between action and object, energy and material, and process and form.

A decade following the exhibit of Events, a San Francisco-based artist named Tom Marioni releases a coiled piece of measuring tape into the air. The tape unfolds, landing on the ground in a straight line. Marioni considers this action to be a sculpture; furthermore, he considers it to be a sound sculpture, because the tape makes a loud sound as it lands. In 1970, he curates an exhibit, *Sound Sculpture As*, at the Museum of Conceptual Art, a self-directed museum aimed at providing like-minded artists with social situations. The exhibit features a "sound sculpture" in which Marioni urinates into a bathtub (this produces a descending sequence of tones), and a sound sculpture in which another artist, Paul Kos, records the sound of ice melting. When

[3] See George Brecht, "The Origin of Events," in *Happening & Fluxus,* ed. Hans Sohm and Harald Szeemann (Köln: Kolnischer Kunstverein, 1970).

this latter work is later broadcast on local radio—along with the rest of the works on display in *Sound Sculpture As*—it is indistinguishable from the conversations of several dozen gallery-goers.

Terry Fox, an American expatriate whose work is also exhibited at *Sound Sculpture As*, develops, over the next forty years, a vast repertoire of works in which he manipulates acoustic energy in order to transform architectural spaces. Among these works is a sculpture in which Fox plays the tamboura, an Indian drone instrument, for six hours a day, for three consecutive days. Fox claims that the sound produced by his actions with the tamboura is able to influence the movement of a candle flame, and make vibrations in water. He further claims that he is not a musician, but, instead, an "amplifier of forces inherent in objects."[4]

In 1962, La Monte Young and Marian Zazeela—a composer and a light artist living in New York City—conceive of an utopian space within which musicians can collaborate continuously for extended periods of time. Almost half a century later, this space still exists in lower

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[4] Terry Fox, *Terry Fox Works with Sound/Arbeiten Mit Klang* (Berlin: Kehrer Verlag Heidelberg, 1998), 15.

Manhattan, having gone through multiple incarnations over the last fifty years. In its current manifestation, the space is realized as a sound-and-light installation that the couple designates as a "total environmental set of frequency structures of sound and light."[5] This environment is made up, in part, of magenta lights and a synthesized drone composed of multiple sets of frequency intervals. Audiences often report the sensation that time is suspended within it. Young and Zazeela call the space the *Dream House*.

In 1967, an American percussionist named Max Neuhaus installs a series of radio transistors along the side of a non-descript road in Buffalo. People who drive on this road find themselves accidentally privy to a rich combination of sine tones that emanates from their car radios for no apparent reason. The amplitude, frequency, and duration of these tones change according to the weather conditions, the time of day, and other environmental factors. In describing this work, Neuhaus coins the term "sound installation." He distinguishes the genre

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[5] See La Monte Young, "Notes on Continuous Periodic Composite Sound Waveform Environment Realizations," *Aspen* 8/7 (1969), http://www.ubu.com/aspen/aspen8/waveform.html.

from music by indicating that, in sound installations, sounds are "placed in space rather than in time."[6]

Beginning in the late 1960s, the American composer Maryanne Amacher creates site-specific sound installations that produce remarkable, and often unsettling, psychoacoustic effects. In 1999, she releases a CD recording of some of these installations, with the disclaimer that the CD can only be listened to on loudspeakers (and not on headphones). She indicates that this is because the psychoacoustic effects can only be achieved if the sounds are allowed to develop within physical, architectural spaces.

In 2003, Bernhard Leitner, an Austrian architect and sound installation artist, releases a CD with the disclaimer that it can only be heard on headphones (and not on loudspeakers). He indicates that the CD contains "three-dimensional sound sculptures"; these sculptures form, somewhat improbably, within the interior space of the listener's head.[7]

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[6] Gregory des Jardins, ed., *Max Neuhaus, Sound Works, Volume 1: Inscription* (Ostfildern-Stuttgart: Catz), 130.

[7] Bernhard Leitner, liner notes to *KÖPFRAUME/HEADSCAPES*, Edition ZKM (CD), 2003.

Starting in the late 1990s, a Canadian radio artist and scholar, Anna Friz, begins to make what she calls "self-reflexive radio" works: works that reflect critically upon transmission practices and histories. Friz sometimes broadcasts these self-reflexive radio works in illicit zones like pirate radio stations, which she operates out of her home. These transmissions spill over into, and interrupt, corporate and private radio transmissions; they deal with subjects like disappearing industrial cities, pirate techno-feminists, and ghosts.

In 2007, an African American artist named Kara Lynch exhibits parts of an ongoing work that confronts what she calls the "conspicuous invisibility of blackness."[8] As part of the project she travels to New Orleans, collecting sounds from black neighborhoods that were ruined by Hurricane Katrina. She then transports these sounds to hallways, elevators, and other transitional zones inside busy public spaces, where they play twenty-four hours a day for several weeks at a time. Paralleling the disappeared communities wherein they originated, the sounds are noticed only once they are removed from these sites.

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[8] Kara Lynch, "episode 03—meet me in Okemah," *Xcp: Streetnotes* (Spring 2005), http://www.xcp.bfn.org/lynch2.html

1.2 Spatial Practices

The following pages tie together these seemingly disparate practices, which are separated by exactly half a century, multiple national borders, and countless disciplinary boundaries. One of the common links between them is that each privileges a spatial practice with respect to the organization of sound. This practice might develop as a reflection of, or resistance to, dominant conceptions of space; it might emerge as a unique spatial poetics or politics; it may contribute critically (or uncritically) to existing spatial discourses; it may embody a spatial strategy that targets and alters the ways in which space is perceived and used.

The principal subject of this dissertation is sound installation art, an under-recognized tradition that I situate here within multiple historical, practical, and critical-theoretical contexts. Unlike most musical works, which are principally concerned with organizing sounds in time, sound installations are centrally concerned with organizing sounds in space.

Sound installations thus necessitate new theoretical and analytical models that take into consideration the spatial situated-ness of sound.

Existing discourses on “spatial sound” privilege technical descriptions of sound localization within physical spaces. Conspicuously absent within these discourses are extended concepts of space and spatiality, for example social spaces, the spaces of the body, imaginary spaces, and spaces that span multiple times and places, whether real, virtual, or imaginary.

By contrast, this dissertation examines the ways in which concepts of space and place are culturally, socially, and politically construed, and how spatially-organized sound works reflect these different constructions. The following chapters address this subject by investigating such topics as: conceptions of acoustic space in postwar Western art music, architecture, and media theory; the beginnings of sound installation art in relation to the emergence of philosophies of everyday life and philosophies of social space; the historical links between musical performance, conceptual art, and sound sculpture; the body as a site for sound installation; and sonic-spatial strategies that confront politics of gender and race.

This introductory chapter, SITUATED SPACES, outlines the theoretical and methodological scope of this dissertation, and gives detailed descriptions of the chapters that follow. It explains what steps were undertaken in this research, what inspired it on both a personal and academic level, what this dissertation aims to do, and how this writing fits within and interrupts existing discourses on spatial sound.

1.3 Situated Knowledges

The impetus to situate the tradition of sound installation art within multiple, seemingly incongruent contexts emerges in dissertation for several reasons. First, on the level of the politics of scholarship, I align my work with that of the theorist Donna Haraway, who in 1988 proposed that even scientific knowledges could develop as "situated knowledges," that is, within a framework that "privileges contestation,

deconstruction, passionate construction, webbed connections, and hope for transformation of systems of knowledge and ways of seeing."[9]

My writing pursues this kind of knowledge by approaching the history of sound installation art through its myriad connections to different fields of inquiry and modes of creative practice. These include, among many others: critical spatial theory, electro-acoustic music history, media theory and architectural theory, philosophies of space, performance studies, and feminist and post-colonial studies. It aims to illustrate the ways in which an essentially intermedia art form can be understood as a complex and dynamic network of practices, concepts, individuals, works, and social, cultural, and political histories, among other kinds of "webbed connections."

Second, this study approaches historical writing as a situated practice because a situated knowledge privileges "partial perspectives": it allows a multiplicity of grounded voices to counter hegemonic, universalizing discourses.[10] In her own writing, Haraway is

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[9] Donna Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," *Feminist Studies* 14/3 (1988): 585.
[10] Ibid., 584.

concerned with developing a "feminist objectivity" as a partial perspective within the context of scientific research. She suggests that such a perspective might develop through a critical understanding and re-ordering of the technologies of vision. Haraway writes:

> Vision can be good for avoiding binary oppositions. I would like to insist on the embodied nature of all vision and so reclaim the sensory system that has been used to signify a leap out of the marked body and into a conquering gaze from nowhere.
>
> [...]
>
> Understanding how…visual systems work, technically, socially, and psychically, ought to be a way of embodying feminist objectivity.[11]

Haraway insists that all vision is embodied and that, rather than emerge from the "conquering gaze of nowhere," must be critically situated within the particular, "marked" body in order to inspire a feminist objectivity. This dissertation aims to develop a similarly critical and situated perspective with respect to the study of spatial sound. Such a situated perspective insists that conceptions of space are not natural or innate, but rather historically, culturally, and socially construed and performed. Further, it insists that considering sound in its

[11] Ibid., 583.

spatial context must reflect upon these particular, grounded places—these rooted conceptual "bodies"—rather than emerge from the conquering perspective of absolute space.

1.4 Roots

A situated knowledge insists upon acknowledging the multiple social, cultural, political, and personal contexts within which knowledge is born. It reveals, rather than masks, its author's particular social, cultural, and political perspectives, and subsequently illuminates the epistemological biases that define the field of inquiry as a whole.

To participate in a contemporary information economy as a producer of knowledge is to occupy a privileged position within multiple networks of power and authority. When the particular situation of knowledge is obscured, however, it perpetuates dominant modes of political and economic production wherein information is systematically withheld (or corrupted) in order to maintain or increase that privilege, power, and authority. Thus, it is critical to discuss the particular contexts—the social, cultural, political, and personal conditions—that inspired and shaped this dissertation.

I moved to the United States from Canada on September 10, 2001. "September 11" marked my first day as a resident of the United States. On that day, I experienced what is commonly known as an identity crisis—what the psychoanalyst who coined the term equated with the loss of "a sense of personal sameness and historical continuity"—and I am still moving through it.[12]

San Diego, the eighth largest city in the United States and the second largest city in California, is actually a collection of non-places.[13] The majority of its public or shared spaces are places like strip malls: collections of retailers whose outfits are multiplied across the country and sometimes across the world. Having relocated to San Diego from a neighborhood in Montreal where local residents had recently shut down a McDonald's restaurant by constantly firebombing it, I was not familiar with this kind of repetition.

After living in San Diego for some time, I also noticed that there

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[12] See Erik H. Erikson, *Identity, Youth, and Crisis* (New York: W.W. Norton, 1968).
[13] See Marc Augé, *Non-Places: Introduction to an Anthropology of Supermodernity* (London: Verso, 1995).

were no people there. That is to say, the city's residents seem to be in a perpetual, self-imposed exile from public space. I once photographed the city in order to document this social isolation, and found it was possible to capture the entire cityscape on film, during daylight hours, without ever showing a single person. San Diego, the eighth largest city in the United States and the second largest city in California, is actually a ghost town.

I have no doubt that my interest in issues of space and place are rooted in my experience of sudden and continued foreignness. This experience was compounded by the fact that I found myself living in what the sociologist Manuel Castells has called a "placeless place" and a "timeless time."[14] In the case of San Diego after September 11, placeless-ness was manifested as a marked absence of social connection to place; timelessness was manifested within a national amnesia that conveniently re-wrote cultural and political histories in order to suit the business of the day.

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[14] See Manuel Castells, *The Rise of the Network Society* (Oxford: Blackwell Publishers, 2000).

A placeless place and a timeless time bring the self into crisis, for how can a subject situate herself within these conditions? And, if the subject is perpetually in crisis, does she revise her own personal history in order to recapture a sense of "personal sameness and historical continuity"? Or does she instead reside within a permanent state of difference and discontinuity? Emerging out of these personal experiences, my research in music and sound art has focused on issues of space, place, and placement/displacement. I am especially concerned with the possibility that the situation or place of knowledge is perpetually unfixed and permanently unstable.

1.5 Spatial Productions

When I began to write about sound installation art in 2003, I kept a journal of the spaces and places in which I did my writing. This journal collected my observations about these different places: how they were physically structured; how individual objects were laid out in relation to one another within them; how light and sound were reflected and absorbed within them; how social identities resonated and were

revealed within them; and, how these places compelled particular resonances and revelations of social identities.

One entry described a café in San Diego run by a middle-aged European American couple whose heavy accents indicated their immigrant status. What struck me about the café was the overabundance of American flags in it. There was an American flag at the cash register, another at the entrance, more on the walls and windows; there was even a small flag in the bins where the muffins were stored. I wondered what had compelled this couple to enact such a flagrant display of patriotism in their place of work, and how their display merged with and interrupted my own—and possibly equally flagrant—display of a "placed" identity. It occurred to me that we always bring our identities and our experiences of "where we come from" to bear in the places where we meet. Later, I would think of place *as* this dynamic network of situated identities.

In observing this café I also thought that the production of place is contingent upon social identities as these emerge in relation to dominant constructions of *time*. The manner in which the European couple expressed their American patriotism seemed anachronistic; it

seemed as though it belonged to a different, more historical time than the one I occupied. I wondered where my own social identity lay in relation to dominant constructions of time: was I ahead of, right there at, or somewhere behind the agreed-upon present moment? In what ways are relationships between identities and social constructions of time revealed or expressed? What are the things that mark us as being of "another time"—are they the same things that mark us as coming from, or belonging to, another place? If social identities can emerge, resonate, and come into crisis in relation to their placement in space, can they also do so in relation to their placement in time?

1.6 Sound and the Production of Place

Another café which was the subject of many journal entries was Starbucks, that ubiquitous non-place where performances of social identity can be played out in fascinating ways. The Starbucks in my neighborhood was the daily haunt of UCSD students, yuppies, and white, blond, middle-class women who gathered there each morning with their baby carriages spread out around them like shopping carts.

This particular Starbucks café had the exact same chairs, tables, lighting units, countertops, napkins, cups, corporate logos, wall decorations, and other design features as every other Starbucks café in the world. Howard Schulz, the CEO of Starbucks holds "retail is detail" as his personal mantra, and claims that every item in Starbucks is designed such that it conveys an "authentic and organic" sensibility.[15] Consequently, the napkins and cups appear recycled; the chairs and countertops are wooden and curved; the couches are soft and feminine, like the long-haired siren that graces the corporate logo; the walls are painted in earth tones. Over eighty designers are employed by Starbucks Inc. in order to produce each one of these "authentic and organic" designs.

In addition to purveying over 19,000 different combinations of coffee—which are exactly replicated across over 7,500 worldwide locations—Starbucks is one of the world's leading music retailers. Like the coffee, the music heard in Starbucks is strictly standardized and regulated. Every Starbucks café is equipped with a special DVD player that can only play discs that are provided by the Starbucks

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[15] "Starbuck: A Visual Cup o' Joe," *Corporate Design Foundation* 1/1 (1995), http://www.cdf.org/issue_journal/starbucks_a_visual_cup_o_joe-2.html.

corporation. A DVD holds about eight CDs worth of music, and every Starbucks café receives the same DVD at the same time, with a turnover rate of about three months per DVD. When a new DVD is received, the previous DVD expires, meaning that it can never be played again. Thus, there is *no* variance in the music that is heard in any Starbucks café, anywhere in the world, at any given time.

When Starbucks first began to sell music, it almost exclusively sold music by African American and pan-African artists. Compilations with names like *Bending the Blues*, *Playin' the Edge*, *Reggae Vibrations*, and *Cubana* were listed alongside albums by iconic African American artists like Louis Armstrong, Ray Charles, Ella Fitzgerald, Billie Holiday, Otis Redding, and Nina Simone. This music was packaged in such a way that it would convey the "authentic and organic" sensibility the Starbucks brand had developed in every other guise. The packaging thus relied on well-worn conceptual tropes that equate black bodies and black cultural expressions with the authentic, the natural, and the organic. Inevitably, histories of violence and resistance were watered down in these (musical) products; one compilation CD of black music sold at Starbucks, for example, was accompanied by the following advertisement:

> *Landmark victories in music history*: Music owes an enormous debt to the contributions of many African-American musicians and artists. We've selected brilliant songwriters who are also socially and politically savvy artisans with firsthand experience in the struggles for racial equality and the misplaced perceptions of others. These vintage song gems are culled from a timeless era of the twentieth century.[16]

A brutally violent social and political history is thus reduced to "misplaced perceptions" and relocated to a "timeless era." As Manuel Castells writes, "the space of flows and timeless time are the material foundations of a new culture that transcends and includes the diversity of historically transmitted systems of representation."[17] As a coherent and legible system of signs, Starbucks does not only sell coffee and music; it also peddles in history, culture, and the politics of representation. All of these are subsumed within the Starbucks system's uneven flows of production and consumption, which depend on the culture and the labor of the underprivileged in order to further enrich privileged economies. In this context, the "authentic and organic" sensibility of the Starbucks brand is literally amplified through the music that is heard there. This music not only fits within a larger system of signs

[16] From the liner notes to Various Artists, *Something To Believe In*, Hear Music B0001G6WKA, 2002.
[17] See Castells, *The Rise of the Network Society*, 2000.

and flows that comprise the Starbucks brand; it constitutes, and is in turn constituted by, the "place" that is Starbucks: a vast network of social, cultural, and economic practices that work to support multiple systems of uneven exchange.

The Starbucks example is given here in order to illustrate the idea that sounds and places can be understood to constitute one another, and, that the organization of sounds cannot be divorced from the production of place. Further, this example shows that sounds do not simply "happen" in places, but are instead "placed" in places, much in the same ways that social identities are placed.

1.7 Situated Sonic Practices

In order to better understand the politics of this placement, I have proposed the idea of a "situated listening": a mode of listening that is contingent upon the particular, placed situation(s) of hearing.[18] A situated listening takes into account not only *what* is being heard, but

[18] Gascia Ouzounian, "Embodied Sound: Aural Architectures and the Body," *Contemporary Music Review* 1/2 (2006): 72.

where and *how* it is being heard, considering that "where" includes such extended meanings as social, political, and imaginary spaces.

Sound installations—which are centrally concerned with the production and experience of space and place—privilege a situated listening. We might therefore consider sound installations within a more general field of "situated sonic practices": any musical or sonic practices that highlight space- and place-based aspects of sonic experience. Situated sonic practices take into consideration not only aspects of the built environment, architectures and social spaces, but also the temporal dimension of space as expressed through memory and history. They thus privilege contested modes of knowledge such as "the experience of sound" and other embodied objectivities and "situated knowledges."[19]

In developing analytical approaches for considering situated sonic practices, including sound installation, it is critical to consider such constructions as gender and race—social constructs that have been

[19] Ibid., 72.

shown to be principal determinants of space, place, and identity.[20]

In June 2006, I organized a session on the topic of "Sound Installation Art and Situated Sonic Practices" at a conference on *Architecture/Music/Acoustics* at Ryerson University in Toronto.[21] The presentations ranged in scope from the idea of "listening to one's body" to "getting inside sonic space." In "Walking the Virtual Body with Janet Cardiff," for example, Lauren Wooley used Bergsonian critique in order to suggest that the sound walks of Janet Cardiff present opportunities to achieve a centerless-ness of self.[22] In "Getting Inside the Sound: La Monte Young's *Dream House* as a Model for Aural Architecture," Jeremy Grimshaw traced La Monte Young's "invocation of the spatial dimension" through its metaphoric and literal stages. Grimshaw suggested that Young's early proposition of "getting inside a sound [through] unusual patience and microscopic attentiveness on

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[20] See Doreen Massey, *Space Place and Gender* (Minneapolis: University of Minnesota Press, 1994). See also Craig Barton, ed., *Sites of Memory: Perspectives on Architecture and Race* (New York: Princeton Architectural Press, 2001).
[21] The *Architecture/Music/Acoustics* conference was hosted by the Department of Architecture at Ryerson University in Toronto, June 8-10, 2006. See http://www.ryerson.ca/amaconf/
[22] Lauren Wooley, "Walking the Virtual Body with Janet Cardiff, *Architecture/Music/Acoustics* conference (Ryerson University, June 8-10 2006).

the part of the listener" was later literalized in the sound-and-light installations Young made in collaboration with the light artist Marian Zazeela.[23]

Other papers similarly tackled the topic of situated sonic practices in innovative and unexpected ways. Zeynep Bulut's "Reading Sarah's Panorama: A Study on 'Third Voice'" examined a sound installation by the Danish artist Ann Lislegaard, using Luce Irigaray's concept of an "incomplete category" to frame the female voice as a "third voice."[24] Bulut proposed that "third voice indicates multiple spaces between sound and voice…Voice turns into a spatial sound element, becomes a "third space" when it leaves the body."[25] Two artist-scholars, Anna Friz and Kara Lynch, presented on their own work, in papers respectively titled "Vacant City Radio" and "21st-Century Griot."[26] I devote a chapter of this dissertation to a discussion of these

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23 Jeremy Grimshaw, "Getting Inside the Sound: La Monte Young's Dream House as a Model for Aural Architecture," *Architecture/Music/Acoustics* conference (Ryerson University, June 8-10 2006).
24 Zeynep Bulut, "Reading Sarah's Panorama: A Study on the 'Third Voice,'" *Architecture/Music/Acoustics* conference (Ryerson University, June 8-10 2006).
25 Ibid.
26 See Anna Friz, "Vacant City Radio," *Architecture/Music/Acoustics* conference (Ryerson University, June 8-10 2006). See also Kara Lynch,

artists' creative practices. In my interpretation, their practices profoundly challenge existing discourses and methods within sound art traditions, by—among other things—critically accounting for issues of gender and race within the production of space and place.

1.8 Space and Place: Definitions

The presentations in *Architecture/Music/Acoustics* drew upon such extended conceptions of "space" as personal spaces, mathematical spaces, harmonic spaces, and gendered and racialized spaces. In a similar spirit, this dissertation draws upon critical spatial theory to explore the idea that space and place are social and cultural productions, and investigates the ways that the organization of sound might fit into this equation.

Until the 1970s, the term "space" was used almost exclusively in order to describe geometric volumes and forms as outlined by the axioms of Euclidian geometry. With *The Production of Space* (1974), the

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"21st-Century Griot," *Architecture/Music/Acoustics* conference (Ryerson University, June 8-10 2006).

French Marxist philosopher Henri Lefebvre helped launch a notion of spatiality which included within its scope the body, action, and the constructed environment.[27] Lefebvre argued that space is produced within a dialectic relationship between social action and spatialization. He posited that space is a social construction, and not an absolute or naturally occurring phenomenon.

Today, the term "space" increasingly refers to deterritorialized forms, as in the "space of flows"—for example, flows of media, capital, and bodies—that interact within a network of globalized structures and routes.[28] Alternatively, the term "place" is typically used in order to describe localized, territorialized phenomena, such as "rooted" bodies (including social and cultural forms). In *The Lure of the Local*: *Senses of Place in a Multicentered Society* (1997), the art historian and theorist Lucy R. Lippard defines "place" as:

> [The] resonance of a specific location that is known and familiar. It is temporal and spatial, personal and political. A layered location replete with human histories and memories, place has width as well as depth. It is about

[27] See Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Oxford: Blackwell, 1991 [1974]).
[28] See Castells, *The Rise of the Network Society*.

> connections, what surrounds it, what formed it, what happened there, what will happen there.[29]

Thus, while the term "space" is used to describe general (non-specific) and deterritorialized phenomena, "place" refers to the rooted, the specific, the situated, and the particular.

In the last twenty years, critical spatial theories that examine the cultural, political, and economic production of space have proliferated.[30] More immediately, new conceptions of space and place—conceptions which posit space and place as uneven, non-synchronous, unpredictable, heteroglossic, and asymmetric constructions—have multiplied, as new spatialities are produced by the double mechanisms of globalization and informationalism.[31] New

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[29] Lucy R. Lippard, *The Lure of the Local: Senses of Place in a Multi-Centered Society* (New York: New Press), 7.

[30] See Edward W. Soja, *The Political Organization of Space, Commission on College Geography* (Washington: Association of American Geographers, 1971). See also Edward W. Soja, *Postmodern Geographies: The Reassertion of Space in Critical Social Theory* (London: Verso, 1989). See also David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Oxford: Blackwell, 1989). See also Frederic Jameson, *Postmdernism, or, the Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1991).

[31] See Michel Foucault, "Of Other Spaces," *Diacritics* 16 (1986): 22-27. See also Massey, *Space Place and Gender*, 1994. See also Rob Wilson and Wimal Dissanayake, ed., *Global/Local: Cultural Production and the Transnational Imaginary* (Durham: Duke University Press, 1996).

media theorists and philosophers such as Marshall McLuhan ("mediaspaces"), Pierre Lévy and Donna Haraway ("cyberspaces"), and Paul Virilio ("information spaces"), have been critical in developing vocabularies for describing new experiences of space and place as these emerge in contemporary information cultures. Similarly, the sociologist Manuel Castells ("the space of flows") and the architectural theorist Marc Augé ("non-places") have put forth critical conceptions of space and place as these are experienced in contemporary networked societies.[32]

Drawing on this literature, I define space as the multiple, dynamic, and hybrid settings—whether social, cultural, personal, or political—of production; and I imagine place to be the moment-to-moment relationships between different elements of a network (elements that include social, cultural, and political bodies).

Place focuses the particular, the situational and the momentary, and is therefore always in flux and subject to change. Space, on the

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[32] See Nick Couldry and Anna McCarthy, ed., *Mediaspace: Place, Scale, and Culture in a Media Age* (London: Routledge, 2004). See also Pierre Levy, *Cyberculture*, trans. Robert Bononno (Minneapolis: University of Minnesota Press, 2001). See also Paul Virilio, *Vitesse et politique* (Paris: Galilée, 1991).

other hand, is used to describe more general and sedentary forms of organization. However, because space and place produce one another, there is an ongoing interplay between the particular and the general, the momentary and the lingering.

In my formulation, identity and place are understood to be mutually productive: identities can be mapped out in terms of real and imagined distances (e.g., to memories, experiences, other bodies) that are brought to bear in moment-to-moment situations that connect particular constellations of distances (bodies and identities) in place.[33]

Thus, I am interested in spatial sound for the ways in which it can provide clues as to cultural conceptions of space, ultimately in order to connect these more general conceptions to particular, lived experiences. The chapters in this dissertation mimic this route: the first chapter is concerned with how ideas of acoustic space emerged in the late 1950s, and how the spatialization of sound "objects" in an iconic spatial music composition, "*Poème électronique*," reflected these larger cultural concerns; the last chapter is concerned with the

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[33] Ouzounian, "Embodied Sound," 72.

ways in which contemporary sound works map out memories and histories onto lived spaces.

1.9 Sonic Arts Discourses

If this study was inspired, on a personal level, by the need to reexamine concepts of space and place as products of social and cultural relations, it was equally driven, on an intellectual level, by the need to address a striking gap in our current knowledge of sound installation art.

The sound artist and theorist Robin Minard defines sound installations as works that "articulate" or "condition" space.[34] He suggests that the genre should be considered as part of the larger category of installation art: works that "[reject] concentration on one object in favor of a consideration of the relationships between a number of elements or of the interaction between things and their contexts." Minard writes:

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[34] See Robin Minard, *Sound Installation Art* (Graz: Institut für Elektronische Musik (IEM) an der Hochschule für Musik und darstellende Kunst, 1996).

> In sound installation, we find this particular quality of relationships to be expressed between the audio, visual and/or architectural elements of the work and secondly between the sound and the space for which the work is conceived as well as between the sound, the space and the observer.[35]

Max Neuhaus, who coined the term "sound installation" in the late 1960s, defines it as sound works without a beginning or an end, in which the sounds are "placed in space rather than time."[36]

I propose a broad definition of sound installation as *spatially-organized sound works*, and, by extension, as *sound works that privilege concepts and experiences of space and place*. In my definition, sound installations may be site-specific or not (they may even be mobile, moving from site to site); they may include performance, recording, or broadcasting elements; they may be installed across multiple spaces and times (real, virtual, and imagined); they may be installed in galleries, museums, electronic networks, and in myriad non-traditional spaces (parks, elevators, subways, bodies, and so on).

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[35] Ibid., 9.
[36] des Jardins, ed., *Max Neuhaus, Sound Works, Volume 1*, 130.

In the first decade of the 21st century, sound art exhibits mushroomed, and include such major undertakings as *Sonic Boom: the Art of Sound* (London, Hayward Gallery, 27 April-18 June 2000), *Sonic Process: A New Geography of Sound* (Paris, Centre Pompidou, 16 October 2002-6 January 2003), and *Sons et Lumières: A History of Sound in the Art of the Twentieth Century* (Paris, Centre Pompidou, 22 September 2004-3 January 2005), among many others. Festivals of sound art similarly multiplied, and include *Liquid Arts* (Australia), *Outer Ear* (USA), *Klang-Kunst Festival* (Germany), *Sound Travels* (Canada), *Sonic Circuits* (USA), and *Xebec Sound Arts* (Japan), among many others.

Considering the vast amount of curatorial attention given to the subject today, there is remarkably little scholarly writing on sound installation. While the topic of "sound art" in general has gained credence in academic circles during the last decade, most of the important texts on the subject—Douglas Kahn's *Noise Water Meat: A History of Sound in the Arts* (1999), *Wireless Imagination: Sound, Radio, and the Avant-Garde* (eds. Kahn and Whitehead, 1992), *Radio Rethink: Art, Sound, and Transmission* (eds. Augaitis and Lander, 1994), *Sound by Artists* (eds. Lander and Lexier, 1990)—have focused on performance,

composition, and broadcasting traditions, with installation practices either skimmed or conspicuously absent. Brandon LaBelle's *Background Noise: Perspectives on Sound Art* (2006) is an exception, devoting several chapters to installation artists and sculptors like Robert Morris, Max Neuhaus, Michael Brewster, Maryanne Amacher, Bernhard Leitner, Bill Fontana, and others.

Significant contributions to the knowledge of sound installation include Robin Minard's *Sound Installation Art* (1996), *Site of Sound: Of Architecture and the Ear* (eds. LaBelle and Roden, 1999), and *Resonances: Aspects of Sound Art* (eds. de la Motte Haber, Leitner, and Schutz, 2003). Still, these texts publicize the work of a select group of artists without necessarily considering wider historical and cultural contexts in which individual works or practices are born. Similarly, exhibit catalogs—which still make up the bulk of the writing on sound installations—provide valuable information on individual artists and works, but they rarely contextualize these practices within wider concerns. To date there are *no* written histories of sound installation art.

Perhaps due to its liminal position between music and visual arts, an in-depth examination of sound installation has been neglected by

musicologists and art historians alike. Consequently, there is a striking disjuncture between our lack of scholarly understanding of the tradition and its significant presence across artworlds.

The first step in my research was therefore to compile a list of works in order to be able to better visualize what such a history might look like (see Appendix A). In trying to make sense of the long and varied tradition that is represented in this list, I contended with what are already problematic approaches to historical writing on sound art. For example, several artists with long histories of exhibition and critical reception inevitably came up during my research, forming an obvious quasi-canon of artists and works. While some of those artists do receive attention here (for example, John Cage and Max Neuhaus), my discussion does not focus on their work at the expense of others who have been marginalized in sound art histories; almost a third of my writing is devoted to theorizing the work of artists who have not been written about before.

Similarly, this dissertation does not locate the origins of sound installation art in the noise-art practices of the Futurists—a group of artists who are ever-present as the "father figures" of sound art in most

existing historical accounts. Instead, it does not date the tradition at all, while conceding that Max Neuhaus did coin the term "sound installation art" in the late 1960s. Rather than construct a traditional history of sound installation, my writing examines the work of multiple, disparate groups of artists whose works illuminate the diversity of concerns within the field. These concerns range from organizing sound "objects" in physical spaces to transforming social spaces through sound, using sound to reveal the dimensions of the body and confront constructions of gender, race, memory, and history.

1.10 Chapters Outline

Chapter Two, ACOUSTIC+VISUAL SPACES, examines the ways in which concepts of acoustic space emerged at the intersection of media theory, architectural theory, and spatial music composition in the late 1950s. It introduces and problematizes the writings of media theorists Marshall McLuhan and Edmund Carpenter, who conceived of "acoustic space" and "visual space" in binary, oppositional terms: they described acoustic space as chaotic, indefinite, and sensual, and conceived of visual space as ordered, definite and rational. In a similar

vein, the architect Le Corbusier conceived of "*espace acoustique*" as a miraculous or transcendent foil to a rational, logical visual space.

Chapter Two shows how avant-garde Western art music traditions of the period similarly drew upon binary, oppositional conceptions of acoustic and visual space. In particular, it shows that composers working within emerging electro-acoustic traditions were concerned with "visualizing," and thereby rationalizing, acoustic space. Chapter Two traces process of "acoustic visualization" in a monumental work of early spatial music: Edgard Varèse's eight-minute long electro-acoustic composition *Poème électronique*, which was broadcast over hundreds of loudspeakers in the Philips Pavilion at the 1958 Brussles World Fair. The Pavilion was structured around a narrative by Le Corbusier that purported to tell a "story of all humankind." This story was constructed around a series of binary oppositions: it pitted the emotional against the logical, the irrational against the rational, the primitive against the advanced, the feminine against the masculine, and the ethnic Other against the Western subject. In my interpretation, these binary oppositions were framed within the larger dialectic that structured the Philips Pavilion: the dialectic between acoustic space and visual space.

Chapter Three, EVERYDAY SPACES+SOCIAL SPACES, traces the beginnings of sound installation art in relation to early philosophies of everyday life and philosophies of social spatialization. The American percussionist-turned-installation-artist Max Neuhaus coined the term "sound installation" in the late 1960s to describe those works of his in which sounds were "placed in space rather than in time."[37] His first sound installation, *Drive-In Music* (1967), consisted of a series of radio transmitters which he placed along the side of a road in Buffalo, a driving community. Neuhaus designed *Drive-In Music* such that it could intersect seamlessly with audiences' everyday lives and compel a different kind of attachment to place.

Prior to *Drive-In Music*, Neuhaus had created *Listen*, a series of works in which he took audiences on listening excursions in public spaces. He claimed of this work that it was a response to avant-garde music traditions, which he felt were not equipped to alter audiences' everyday experiences of sounds. Chapter Three situates Neuhaus's idea of sound installation art as an "everyday" and "social" art within a larger network of art practices and philosophical projects that blurred the boundaries between art and the everyday. Finally, this chapter

[37] des Jardins, ed., *Max Neuhaus, Sound Works*, 130.

gives examples of contemporary sound artists that share concerns with Neuhaus; these artists create works that alter peoples' relationships to everyday environments through an active engagement with sound.

The following chapter, CONCEPTUAL SPACES, returns once more to the late 1950s, in order to draw connections between practices that are typically never considered in relation to one another: sound installation art and musical performance. Many important historical links exist between these traditions, but these connections are obscured within discourses that continue to perpetuate artificial disciplinary boundaries.

In particular, this chapter examines the ways in which the music of Fluxus artists in the late 1950s influenced the sound sculptures of conceptual artists working in the San Francisco Bay Area in the late 1960s and 1970s. The chapter begins by re-evaluating the Fluxus artist George Brecht's conception of the "Event." Brecht's first Event score, "Motor Vehicle Sundown—An Event" (1958) indicated verbal instructions for a chance-based performance with parked cars. The following year, his exhibit *Toward Events* displayed objects which were accompanied by the open-ended instruction "to be performed." In the

literature on Fluxus, the Event has thus come to be theorized as a "performance technique" in which objects are arranged according to chance methods.[38]

In my interpretation, the Event hinted at much more: a metaphysics that drew on science and religion in order to frame an alternate reality in which actions and objects are perceived as indistinct forms. The Event reconfigured objects (static forms) within a language of actions (dynamic processes). As such, it contributed to the emergence of new sonic arts expressions: Action Music, a minimalist genre of Fluxus performance in which everyday objects and actions were framed as musical gestures, and ensuing genres of performance-sculpture, in which sound actions were ritualistically performed with the intent to "transform space."

Chapter Five, EMBODIED SPACES, introduces sound works that are intended for installation within the spaces of the human body. Two examples are the American artist Maryanne Amacher's *Sound Characters: The Making of the Third Ear* (1999), and the Austrian

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[38] See Hannah Higgins, *Fluxus Experience* (Berkeley: University of California Press, 2002).

architect Bernhard Leitner's *KOPFRAÜME/HEADSCAPES* (2003). Amacher's CD is designed, in part, to vibrate what Amacher calls the "inner ear." These tracks produce a "third ear music" which resonates inside the skull, and which is distinct from the music that is heard through the loudspeakers. Leitner's CD is designed for installation inside the human head.

I undertake an embodied reception of Amacher's and Leitner's works, experimenting with an "embodied listening" and a "situated listening." These take into consideration aspects of the built environment, social spaces, and imaginary architectures, as these are perceived at the intersection of sound, space, and the body. Ultimately, this analysis aims to reveal the ways in which networks of sound, space, place, and embodiment may be understood to produce and constitute one another.

The following chapter, CONTESTED SPACES, examines the work of contemporary artists whose sound works develop within and interrupt such contested spaces as gendered and racialized spaces. The first part of the chapter introduces the work of Anna Friz, a contemporary Canadian radio artist who works between installation, transmission, and

performance practices. Since the late 1990s, Friz—who is both an artist and a scholar of radio art—has been making “self-reflexive radio,” an artform in which the radio is the source, subject, and medium of the work. These self-reflexive radio works deal with the idea of transception, which moves beyond traditional broadcast-dialogue models of radio transmission to suggest that communication happens in multiple places: literal or figurative bodies, geographies, and worlds. This chapter theorizes Friz’s self-reflexive radio works as they develop in relation to a language and a aesthetics of place; in particular, it argues that Friz’s works enact an oppositional spatial strategy within informational capitalism (i.e. the Information Age) by positing a critical, and specifically feminist, radio utopia.

The second part of this chapter takes the form of a map. The map constructs the individual creative history of the American artist Kara Lynch, as it emerges in connection to a collective history of African American cultural expression. Positioning history as a complex, dynamic system of interwoven memory networks, the map follows Lynch’s traversals through different “zones of cultural haunting”: places where collective memories made invisible through systematic processes of cultural erasure may be recovered and revived. Through these

traversals, the map covers such terrains as mechanisms of coding and abstraction in African American media, and the possibility that the place of music might not be the site of sound, but instead, the social production of memory.

1.11 CONCLUSION

Through these different investigations, this dissertation proposes an "on-topological" model of analysis with respect to sound: a mode of critical-theoretical analysis that considers sound primarily in relation to ontologies of space and place. In 1994, the philosopher Jacques Derrida proposed the concept of an "on-topology" as:

> [An] axiomatics linking indissociably the ontological value of present-being (on) to its situation, to the stable and presentable determination of a locality, the topos of territory, native soil, city, body in general.[39]

In other words this dissertation posits that sound works can be heard and theorized as they function within ontologies of space and

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[39] Jacques Derrida, *Spectres of Marx: The State of the Debt, the Work of Mourning, and the New International*, trans. Peggy Kamuf (London: Routledge, 1994), 82.

place: multiple and dynamic networks of social, cultural, and political production.

CHAPTER TWO

ACOUSTIC SPACES+VISUAL SPACES

2.1 Introduction: Taking Possession of Space

In 1946, the architect Le Corbusier wrote that "taking possession of space is the first gesture of living things, of men, and of animals. The first proof of existence is the act of occupying space."[1] In the decade following the Second World War, "taking possession of space" became an increasingly pressing concern within the Western musical avant-garde. Traditional musical considerations, such as the organization of pitch, rhythm, harmony, and form, were increasingly supplanted by spatial considerations, such as the arrangement of performers inside an auditorium, and the ability to channel sound electronically to and

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[1] See Le Corbusier, "L'espace indicible," in *Architecture Culture 1943-1968*, ed. Joan Ockman, 66-67 (New York: Columbia Books on Architecture, 1993 [1946]). The original French reads: "*Prendre possession de l'espace est le geste premier des vivants, des hommes et des bêtes, des plantes et des nuages, manifestation fondamentale d'équilibre et de durée. La preuve première d'existence, c'est d'occuper l'espace*."

between multiple loudspeakers.

During this period, a vocabulary of space emerged in relation to musical forms and processes, one that was inextricably tied to languages of control and territorialization. Efforts to spatialize sound—to determine the location and movement of sounds within architectural spaces—often communicated larger concerns over the "place" of music within Western societies, and the ability of music to produce and accumulate cultural capital. Concepts of acoustic space and sound spatialization developed in relation to larger questions of the value of music and the "essence" of sound space. These concepts receive renewed attention here because they would be critical to subsequent traditions of sound installation art and spatial music composition.

Inquiry into the realm of acoustic space during the postwar era, however, was not reserved to musical fields of production. In 1953, the Canadian media theorists Marshall McLuhan and Edmund Carpenter co-wrote an article, "Acoustic Space," outlining concepts that would be critical to McLuhan's later writings on the relationships of media to

social organization.[1] McLuhan and Carpenter embarked on their studies of acoustic space, perhaps improbably, because they were concerned with the effects of electronic media upon the Western imagination. They wrote, "we are largely ignorant of literacy's role in shaping Western man, and equally unaware of the role of electronic media in shaping modern values."[2]

McLuhan and Carpenter believed that the phonetic alphabet (what they considered to be a Western construct) and its various media derivatives had resulted in a "one-thing-at-a-time analytic awareness in perception"—a fragmented perception that was useful for developing applied knowledges.[3] In contrast to the "one-thing-at-a-time" awareness generated by phonetic literacy, electronic media like television and radio would reduce the world to a "village or tribe where everything happens to everyone at the same time: everyone knows about, and therefore participates in, everything that is happening the

[1] Edmund Carpenter and Marshall McLuhan, "Acoustic Space," in *Explorations in Communication*, ed. Edmund Carpenter and Marshall McLuhan, 65-70 (Boston: Beacon Press, 1960 [1953]).
[2] Edmund Carpenter and Marshall McLuhan, "Introduction," *Explorations in Communication*, ed. Edmund Carpenter and Marshall McLuhan (Boston: Beacon Press, 1960), ix.
[3] Ibid., xi.

minute it happens."[4] According to this logic, the proliferation of electronic media therefore signaled a return to a "pre-literate" mode of perception. This pre-literate perceptual structure was organized according to oral traditions, and was therefore designated an "acoustic space."

McLuhan and Carpenter conceived of this acoustic space as a dark, chaotic, and sensual foil to an enlightened, orderly and structured visual space that, they believed, had dominated the Western imagination since the invention of phonetic literacy. They wrote:

> Until writing was invented, we lived in acoustic space, where the Eskimo now lives: boundless, directionless, horizonless, the dark of the mind, the world of emotion, primordial intuition, terror. Speech is a social chart of this dark bog. Speech structures the abyss of mental and acoustic space, shrouding the voice; it is a cosmic, invisible architecture of the human dark. Speak that I may see you.
>
> Writing turned the spotlight on the high, dim Sierras of speech; writing was the visualization of acoustic space. It lit up the dark.[5]

In atomizing the word, phonetic literacy had ordered the Western "visual bias" along the axioms of Euclidean geometry, in which objects

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[4] Ibid., xi.
[5] R. Murray Shafer, "Acoustic Space," in *Lien-L'espace du son II*, ed. Francis Dhomont (Ohain: Musiques et Recherches, 1991), 15.

are fixed in a definite and linear ordering. Conversely, acoustic space had no central focus or vanishing perspective. It was a "sphere without fixed boundaries," unbounded, dynamic and "always in flux."[6]

While McLuhan and Carpenter exclusively associated visual space with modern, literate, and Western cultures, they reserved acoustic space to describe the perceptual structures of preliterate or "primitive" man. The primordial essence of acoustic space was therefore evoked through its association with non-Western or pre-modern civilizations. McLuhan wrote, for example, that:

> For the caveman, the mountain Greek, the Indian hunter (indeed, even for the latter-day Manchu Chinese), the world was multicentered and reverberating [...] Acoustic space is a dwelling place for anyone who has not been conquered by the one-at-a-time, uniform ethos of the alphabet. It exists in the Third World and vast areas of the Middle East, Russia, and the South Pacific."[7]

According to this binary, essentializing logic, acoustic space was chaotic and primitive, a perceptual structure inhabited by non-Western societies. However, the return to acoustic space through the

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[6] Carpenter and McLuhan, "Acoustic Space," 67.
[7] Marshall McLuhan, "Visual and Acoustic Space," in *Audio Culture: Readings in Modern Music*, ed. Christopher Cox and Daniel Warner (New York: Continuum, 2004 [1989]), 68.

proliferation of electronic media was potentially desirable in that it might engender a new kind of social organization based on a "tribal outlook [that] puts a premium on togetherness."[8] In other words, the return to acoustic space signaled a "retribalization" of Western civilization within what McLuhan would call a "global village."

This chapter explores these and other conceptions of acoustic space as these informed the Philips Pavilion, an iconic multimedia spectacle exhibited at the Brussels World Fair in 1958. Among other elements, the Philips Pavilion housed "*Poème électronique*," a spatial music composition by Edgard Varèse that was projected over hundreds of loudspeakers. In musicological discourses, "*Poème électronique*" is almost always described as comprising abstract, disembodied sequences of sound objects and geometries. Conversely, this chapter draws on McLuhan's and Carpenter's theories of acoustic and visual space to suggest that "*Poème électronique*" was, instead, a calculated negotiation of acoustic and visual space. This negotiation attempted to confer upon acoustic space qualities that were previously reserved to describe visual space: its legibility, its rationality, its definite ordering.

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[8] Carpenter and McLuhan, "Introduction," xi.

This chapter further shows that "*Poème électronique*" was not an abstract work at all, but instead an allegorical one that fit within the Philips Pavilion's larger narrative scheme, which told a "story of all humankind." This narrative was figured within all the elements of the Philips Pavilion, which also included a film, hanging sculptures, and an elaborate lighting design. The Pavilion's "story of all humankind" was constructed through a series of conceptual binaries that juxtaposed such categories as primitive/advanced, female/male, racialized/white, and sensual/rational: contrasts that were framed within the larger dialectic between acoustic and visual space.

The project to spatialize, rationalize, and therefore "visualize" sound objects was ultimately carried out in order to put music on equal grounds with other forms of visual media, which are privileged within Western philosophical traditions as sites of knowledge. Western cultures have traditionally privileged visual media (including literary media) as sites of knowledge; aural media have traditionally held a secondary role in terms of their perceived ability to function as repositories of information. The introduction of the sound object and the project to spatialize this object can be seen as an attempt to recover the role of

music as a site of knowledge, with spatial music assuming qualities (legibility, linearity) that were previously reserved for visual media.

2.2 Postwar Music and the Spatial Imagination

It became newly possible to create "spatial music" when magnetic tape became commercially available following the Second World War. Magnetic tape suggested an equivalency between time and space in the medium of sound, since musical time could be measured in terms of physical distance (the length of tape). Composers sought to exploit this newfound plasticity of sonic materials; many reconfigured their musical practices within a language and aesthetics of sculpture.

Pierre Schaeffer, the director of an early electronic music studio at the *Radiodiffusion Française* (RDF) in Paris, introduced the term "*musique concrète*" in 1948 to describe music that resides in a fixed medium like disc or tape. He designated "*l'objet sonore*" (the sonorous object) as the basic element of *musique concrète*, and developed a

compositional vocabulary that took into account this newfound "object-hood" of sound. Concurrently, composer-engineers at his studio developed new technological devices, like the *pupitre d'espace*, which could locate and route sonorous objects—like other objects—within architectural spaces.[9]

The 1950s witnessed a blossoming of spatial music composition for magnetic tape. In the United States, composers associated with the Project for Music for Magnetic Tape produced several octophonic tape works between 1952 and 1954. Each of these compositions were recorded onto eight magnetic tapes and projected using eight loudspeakers; they included John Cage's "Williams Mix," Morton Feldman's "Intersection I," and Earle Brown's "Octet." For Cage, the spatial manifestation of musical forms represented another frontier in musical indeterminacy. Cage considered spatial music to be innately indeterminate, since the "intersections" of sounds in space were

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[9] Schaeffer's assistant Jacques Poullin developed the *pupitre d'espace* in 1951. It was a device that could route sound from five-track tape to five loudspeakers. The sound routes belonging to four of the tracks were predetermined, while that of the fifth track was improvised by a performer who manipulated the *pupitre d'espace* live in concert. Schaeffer and his frequent collaborator Pierre Henry used it to project their first multi-track tape composition, *Symphonie pour un homme seul* (1950).

unfixable and unpredictable. Spatial music composition therefore fit within Cage's larger aesthetic philosophy, which sought to achieve a musical "freedom" through the elimination of the composer's "ego" from the compositional process. Cage wrote:

> It is thus possible to make a musical composition the continuity of which is free of individual taste and memory (psychology) and also of the literature and "tradition" of the art. The sounds enter the time-space centered within themselves, unimpeded by service to any abstraction, their 360 degrees of circumference free for an infinite play of interpenetrations.[10]

In conceptualizing the "interpenetrations" of sounds in space, Cage drew upon the music and thought of Edgard Varèse, who had been developing an aesthetics of spatial music since the early 1930s. It is thought that Varèse's contributions "provided the inspiration for the idea of sound in motion, comparatively rare as a compositional element in pre-Varèsian music."[11]

A self-styled musical pioneer, Varèse frequently spoke of "liberating" Western music from its multiple strictures: its equal-tempered systems, its limited dynamic ranges, its tonal languages, its privileging of

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[10] John Cage, *Silence* (Middletown, CT: Wesleyan UP, 1961), 59.
[11] Jonathan Strawn, "The *Integrales* of Edgrad Varèse: Space, Mass, Element, and Form," *Perspectives of New Music* 17/1 (1978): 141.

melodic development over parameters like timbral modulation. Most urgently, he wanted to liberate music from its stationary perspectives such that it could emit a "sense of sound-projection in space."[12] Varèse imagined himself adding a "fourth dimension" to music that would allow music, writing that:

> We have actually three dimensions in music: horizontal, vertical, and dynamic swelling or decreasing. I shall add a fourth, sound projection – that feeling that sound is leaving us with no hope of being reflected back, a feeling akin to that aroused by beams of light sent forth by a powerful searchlight – for the ear as for the eye, that sense of projection, of a journey into space.[13]

The "journey of music into space" would afford it qualities that had previously been reserved for visual media (a horizon, a sense of projection). For Varèse, it meant that music could become a rational "art-science" that could develop in terms of geometry rather than according to *passéist* concepts of melody and harmony. In Varèse's conception, spatial music would not be concerned with the discrete manipulations of melodic and harmonic development. Instead, it would be a "total" expression that could develop as a coherent,

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[12] Edgard Varèse, "The Liberation of Sound," in *Audio Culture: Readings in Modern Music*, ed. Christopher Cox and Daniel Warner (London: Continuum 2004 [1936-39]), 19.
[13] Ibid., 18.

structural whole—a logical, legible system. Varèse wrote:

> When new instruments will allow me to write music as I conceive it, the movement of sound-masses, of shifting planes, will be clearly perceived in my work, taking the place of the linear counterpoint. When these sound-masses collide, the phenomena of penetration or repulsion will seem to occur. Certain transmutations taking place on certain planes will seem to be projected onto other planes, moving at different speeds and at different angles.
>
> There will no longer be the old conception of melody or interplay of melodies. The entire work will be a melodic totality. The entire work will flow as a river flows.[14]

Cage would later echo Varèse's idea that spatial music functioned as a totality. In a 1957 speech about the new possibilities afforded by magnetic tape, Cage claimed that "the situation made available by [magnetic tape] is essentially a total sound-space, the limits of which are ear-determined only." He suggested that "old" concepts of scales, modes, and theories of counterpoint resembled "discrete steps" in mathematics. And, he argued that "this cautious stepping is not characteristic of the possibilities of magnetic tape, which is revealing to us that musical action or existence can occur at any point or along any

[14] Ibid., 17-18.

line or curve or what have you in total sound-space."[15]

2.3 Sound Projected Into Space

Before magnetic tape was even available, Varèse imagined a limitless musical complexity that would be engendered by spatial music. He wrote:

> I began listening to sounds around me from all directions, and imagined how such sounds, and in just such a complexity, could be transmuted into music. It excited and stimulated me to think about the possibility of such a metamorphosis, and I began to imagine the invention of new devices that would make spatial music possible.[16]

Varèse's dream of a spatial music would materialize in different ways and to varying degrees of success throughout his career. In 1954 Varèse premiered "*Déserts*," a composition for two-track tape and orchestra. When it was broadcast by *Radio France*, it marked the first occasion that music was broadcast in stereophonic sound on French radio. In order to hear the spatial effects, listeners at home had to

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[15] John Cage, "Experimental Music," lecture given at Music Teachers National Association (Chicago, 1957), grace.evergreen.edu/~arunc/texts/music/cage1/cage1.pdf.
[16] Strawn, "The *Integrales* of Edgard Varèse," 141.

procure two radios, each tuned to a different station that carried one channel of the two-channel mix.

While the occasion of the broadcast was considered historically significant, however, the critical reception of "*Déserts*" was as mixed as its spatial rendering. Audiences who attended the live performance were unable to make out the tape parts; their loud (and often obscene) protests were mixed-in with the music that was broadcast over the French airwaves. Cultural administrators who had gathered together to hear the broadcast—and who had anticipated an altogether different kind of polyphony—threatened to pull the plug on the *Radiodiffusion Française*, where the tape parts had been prepared.[17]

It was not until "*Poème électronique*," Varèse's musical contribution to the Philips Pavilion at the 1958 Brussels World Fair, that his dream of a spatial music was fully realized. An eight-minute long piece of *musique concrète*, "*Poème électronique*" was perhaps the most ambitious of all postwar spatial music compositions. Information

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[17] Olivia Mattis, "Varèse's Multimedia Conception of *Deserts,*" *Musical Quarterly* 74/4 (1992): 558.

determining the sounds' spatialization was encoded, along with the sounds and their special effects (reverberation, etc.) onto several sets of multi-track tape. According to the architectural historian Marc Trieb, the sound spatialization in "*Poème électronique*" was achieved thus:

> The recording was made on one track, reserving the second and third tracks for "reverberation and stereophonic effects." A second tape with fifteen tracks, was used to control the distribution of sounds among the several hundred speakers positioned throughout the building. The tracks were 35mm wide, punched with the same perforations as cinematic film. Each of the tapes was scanned on its own playback machine (with up to fifteen playback heads); each unit was duplicated, yielding a total of four playback machines in the control room. Twenty amplifiers, each with 120 watts, powered the production.[18]

This spatialized sound was routed through nine "sound routes" that determined the music's trajectory over 300-425 loudspeakers.[19] A studio and team of engineers in Eindhoven were dedicated to achieving the music's synthesis and spatial distribution.

Upon its premiere in April 1958, critics declared "*Poème*

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[18] Trieb, *Space Calculated in Seconds*, 203.
[19] There is no consensus on the number of loudspeakers that were used in *Poème électronique*; most sources place the number between 300 and 425.

électronique" "*The Rite of Spring*, but in 1958," referring to the scandal that the music caused upon its first hearing.[20] Audiences described it in singularly visceral terms. "*Poème électronique*" was an attack on the senses, "loud enough to assault," sending "lethal beams of sound" to unassuming fairgoers.[21] One critic described the experience thus: "the intense spine-tingling reverberations overwhelm you as the sound impinges on you from all directions at once, only to numb you in turn with extremely high shrieking, whistling eerie echoes."[22]

Another spoke of the immersive quality of "*Poème électronique*'s" sound-space, writing that in the Philips Pavilion, "one no longer hears the sounds, one finds oneself literally in the heart of the sound source. One does not listen to the sound, one lives it."[23]

Today, "*Poème électronique*" is considered an iconic piece of *musique concrète*, one of only a handful of tape music compositions to have successfully navigated entry into the Western musical canon. It

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20 Trieb, *Space Calculated in Seconds*, 217.
21 E.T. Canby, "Audio Etc.," *Audio* (October 1987): 78.
22 Hugo Gernsback, "400 Loudspeakers," *Radio Electronics* (1958): 47.
23 J.O. "*Le Poème électronique*," *Radio et T.V.* 5 (May 1958): 349-355. Quoted and translated in Ferdinand Ouellette, *Edgard Varèse* (New York: Orion Press, 1968), 201-202.

assured Varèse's status as one of the most influential composers of the century—a position that was tenuous upon its creation, when Varèse had only recently emerged from a long, drawn-out silent period.[24] The music remains in wide circulation, with several re-mastered stereophonic recordings issued on compact disc since the early 1990s.[25]

Although many of Varèse's earlier compositions had been conceived for spatial projection, it was "not until *Poème électronique* [that Varèse had] at his disposal the equipment necessary to achieve such spatial motion."[26] The principal acoustic engineer of the Philips Pavilion explained that, "the listeners were to have the illusion that various sound-sources were in motion around them, rising and falling, coming together and moving apart again," perfectly echoing Varèse's

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[24] See Mattis, "Varèse's Multimedia Conception of *Dèserts*." Mattis points out that Varèse had all but "vanished from the musical scene" and published "not a note" for almost twenty years after the 1936 premiere of his *Density 21.5*.

[25] Several stereophonic versions of Poème électronique have been released on CD, including by Sub Rosa (2002), Ellipsis Arts (2000), London Records (1998), One Way Records (1996), and Neuma Records (1990). An early stereophonic version for tape was released by Columbia Records (1960-62). These recordings reconfigure the original spatial dimensions of *Poème électronique* in drastically different ways and none can be said to faithfully transmit the original spatial trajectory of the piece.

[26] Strawn, "The *Integrales* of Edgard Varèse," 141.

earlier dream of a spatial music.[27] In a 1959 lecture to students at Sarah Lawrence College, Varèse claimed that at the age of seventy-five, he had finally realized this dream. He exclaimed, "for the first time I heard my music literally projected into space!"[28]

2.4 The Philips Pavilion: An "*espace acoustique*"

At the Brussels World Fair, "*Poème électronique*" was installed in the Philips Pavilion, an eight-minute long multimedia spectacle conceived of by Le Corbusier as combining "sound, light, color, rhythm" in the form of an electronic poem.[29] Le Corbusier acted as the Philips Pavilion's artistic director, and he provided the conceptual framework for the poem. Varèse contributed "*Poème électronique*," which was projected during the spectacle's main portion. Iannis Xenakis, who worked as an assistant in Le Corbusier's studio, designed and implemented the pavilion's architecture, and composed a two-minute interlude, "*Concrète P.H.*," during which time audiences were ushered in and out of the pavilion. The Philips Pavilion also featured a

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[27] Willem Tak, "The Sound Effects," *Philips Technical Review* 20/2-3 (1958): 43.
[28] Strawn, "The *Integrales* of Edgard Varèse," 141.
[29] Trieb, *Space Calculated in Seconds*, 9.

film prepared by the Italian filmmakers Jean Petit and Philippe Agnostini according to Le Corbusier's directions, as well as an elaborate lighting scheme, color projections, and hanging sculptures.

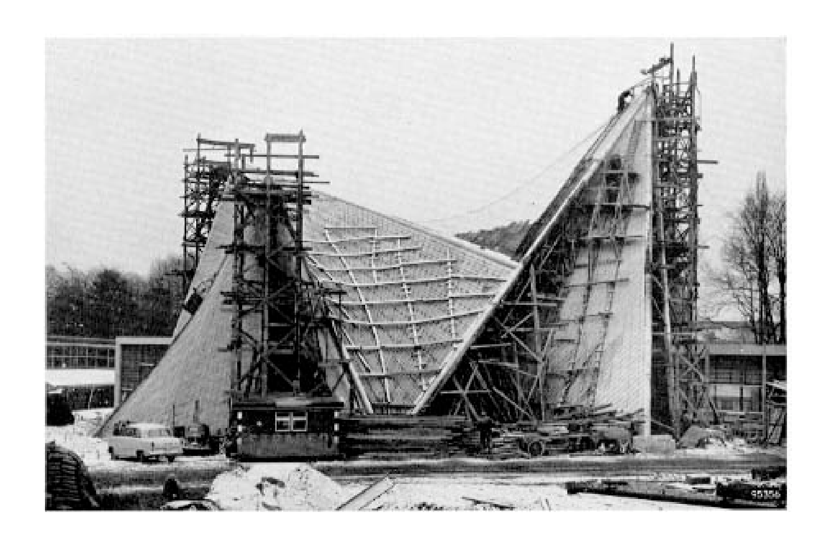


Figure 2.1: The Philips Pavilion under construction in 1958. Photographer: Hans de Boer.[30]

[30] From *Philips Technical Review* 20/1 (1958/59): 35. Photo by Hans de Boer.



Figure 2.2: Near the entrance to the Philips Pavilion in 1958. Photographer: Hans de Boer.[31]

To a certain extent, all of the media in the Philips Pavilion performed the conceptual binaries that McLuhan and Carpenter had described in their theories of acoustic and visual space. These juxtapositions were framed within a narrative—a "story of all humankind" that Le Corbusier had devised for the Pavilion, in order for the Pavilion to fit within the Brussels World Fair's theme of "Man and Progress." This story depicted the evolution of humankind from "primitive" societies to the Nuclear Age, through a series of juxtapositions that contrasted the intuitive with the rational, the emotional with the logical, and the primitive with the advanced.

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31 From *Philips Technical Review* 20/1 (1958/59): 35. Photo by Hans de Boer.

Constructed around a long series of oppositional contrasts, the final moments of the story expressed even something akin to McLuhan's global village: a world in which an enlightened and united humankind had transcended its primitive desires and nuclear ambitions, co-existing peacefully in one nation.

In conceptualizing the Philips Pavilion as a rich *Gesamtkunstwerk* that would combine multiple media within a single, coherent structure, Le Corbusier wanted to produce what he called an "*espace acoustique*": a "fourth dimension" of space. In his article "Le Corbusier and the Acoustical Trope: An Investigation of its Origins," (1997) the architectural historian Christopher Pearson outlines Le Corbusier's thoughts on *espace acoustique*, writing:

> Critics of the architect and artist Le Corbusier have often been baffled by his refusal to provide a forthright explanation of the peculiar formal and iconographic innovations of his later career.… [One] Corbusian conception which seems to hint at a partial explanation is that of "ineffable space" (*l'espace indicible*), a recurrent term in many of Le Corbusier's texts from the 1940s onward. Another is his singular conception of "acoustics,"

> which he often used as a kind of trope or analogical tool in his late production.[32]

Pearson indicates that many architectural historians use the term "acoustic" to describe Le Corbusier's best-known work, the Notre-Dame-du-Haut at Ronchamp. Le Corbusier referred to this structure as an "acoustic" environment, writing that in designing it he had discovered "an acoustic component in the domain of form" and suggesting that he had taken into consideration "the acoustic of the landscape."[33] According to Pearson, Ronchamp was "conceived as a sort of visual echo, a formal response to the surrounding vista."[34] Accordingly, Pearson stresses that for Le Corbusier the term "acoustic" functions in a strictly analogical way, in order to describe the ways in which visual structures "resonate" relative to their surroundings.

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[32] Christopher Pearson, "Le Corbusier and the Acoustical Trope: An Investigation of its Origins," *The Journal of the Society of Architectural Historians* 50/2 (1997): 168.
[33] Ibid., 168.
[34] Ibid., 168.



Figure 2.3: Le Corbusier, Notre-Dame du Haut Ronchamp (1950-54).[35]

In his much-cited 1946 article "*L'Esapce indicible*" ("Ineffable Space"), Le Corbusier outlined a model for a "miraculous" architecture that could, through a strictly calculated rationalism, transcend the fixity of the built environment. This transcendent fourth dimension of space was the result of the "harmonious orchestration" of structures—objects and environments. When combined to produce an "exceptionally just consonance," these architectures would conceivably induce in their inhabitants a "moment of limitless escape."[36] Le Corbusier called this fourth dimension of architecture an "acoustic space" (*espace acoustique*), writing:

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35 See "Ronchamp Chapel and the Crab Shell," http://blog.miragestudio7.com/2007/03/ronchamp-chapel-and-the-crab-shell/

36 Le Corbusier, "L'espace indicible," in *Architecture Culture 1943-1968*, ed. Joan Ockman, 66-67 (New York: Columbia Books on Architecture, 1993 [1946]).

> For a long time, I have thought that in certain architectural places (inside and outside), places that I have characterized as "acoustic" (because they are the reactive foci of these spaces), great forms of intelligent geometry composed of irregular surfaces could inhabit our great buildings of concrete, of iron, or of glass.... In front of these buildings, at their sides or on their front, the forms will call out to space.[37]

Le Corbusier's use of the term "acoustic" does not refer to audible phenomena, but instead to the ability of well-proportioned structures to visually "resonate" within their surroundings.[38] It can therefore be argued that Le Corbusier conceived of the Philips Pavilion as an *espace acoustique*, in the sense that he intended the media interactions to produce a "phenomenon of concordance… a true manifestation of plastic acoustics."[39]

2.5 To All Mankind

Despite Le Corbusier's claims to rationalism, however, the media interactions inside the Philips Pavilion were fortuitous, chanced. They comprised complex relationships that were not—and indeed could not

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37 Pearson, "Le Corbusier and the Acoustical Trope," 178.
38 Le Corbusier, "L'espace indicible," 66.
39 Ibid., 66.

have been—predicted or calculated before the Pavilion's unveiling. All of the media were prepared in isolation; there was no scripted relationship between them; and their respective authors retained creative control over their individual contributions.

The one unifying factor between the different was Le Corbusier's "story of all humankind." The binary juxtapositions that drove this story—couplings like feminine/masculine, Western/non-Western, emotional/logical—were framed within "the larger dialectic that had always existed in [Le Corbusier's] thought between the creative intuition of art… and the geometric rationalism governing architecture."[40] In the most blatant example, the volumes (sculptures) that hung at the Pavilion's apex contrasted a "mathematical object," representing logic and rationality, with a naked female form.

The Philips Pavilion's "luminous and sonorous poems" (the film and the music) performed similarly reductive tropes, although they relied on a somewhat more complex vocabulary through which to do so. The film was constructed out of a series of still photographs and archival film

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[40] Joan Ockman, ed., *Architecture Culture 1943-1968: A Documentary Anthology* (New York: Columbia University Press, 1993), 64.

clips that Le Corbusier had selected; it was assembled by the filmmakers Jean Petit and Philippe Agnostini, who put these to filmic sequence. As per Le Corbusier's instructions, the film was divided into seven minute-long segments:

1. Genesis
2. Matter and Spirit
3. From Darkness to Dawn
4. Manmade Gods
5. How Time Molds Civilization
6. Harmony
7. To All Mankind

Each segment was a montage of the black-and-white stills and clips that were effectively colored by the *tri-trous* and *ambiances* (respectively, beams and washes of colored lights); these color sequences were coordinated with the film.

The opening sequence of the film, "Genesis," depicts the biblical story of Adam and Eve through a series of binary contrasts. The first image is that of a bull and toreador, whose bodies are bathed in a red sensual light. Their figures occupy opposite ends of the screen, and are set in a violent interplay of rhythmic close-ups. Following this, an ancient Greek statue, representing God, appears; he is washed in the cold blue light of wisdom. Eve then arrives as a foil to these symbols of male

power and authority. She takes the form of a half-naked Hollywood starlet rudely awakened from a luxurious slumber. Her body is a series of soft curves and textures, her expressions betray her mark her as a repository of emotions and desires. She has whiter-than-white skin; it is illuminated and unadulterated by color.



Figure 2.4: Stills from segment 1, "Genesis," in the luminous poem: the bull and toreador, the Greek statue, and "Eve."[41]

The next segment, "Matter and Harmony," is organized around a similar set of juxtapositions. The first image is of a group of middle-aged white men who are assembled around an object; a modern version of God, these men are also washed in a pale blue light. Their image is contrasted by that of a female African goddess, a bust set in a polyphony of vivid colors (reds, blues, and yellows). Unlike the men, who represent logic and reasoning and who gaze determinedly upon their

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[41] These and all subsequent stills from the film are from Edgard Varèse and Le Corbusier, *Poème électronique* (1958), http://www.ubu.com/film/varese.html

creation, the gaze of the goddess is turned inwards; she lives in a world of emotions and sensations, not intellect.

Just as femininity is constructed in opposition to knowledge and power in the opening frames of the film primitivity is constructed here in opposition to whiteness and modernity. The black goddess, with her protruding breasts and fantastic headdress, symbolizes mythology, sensation, and tribal culture, whereas whiteness appears throughout the film in association with masculinity, purity, knowledge, science, rationality, and technology. The black figure does not have access to these markers of modernity; she is relegated to the realm of the primitive, grouped with the images that follow hers: a rapid succession of apes, dinosaur skeletons, and tribal drawings.



Figure 2.5: Stills from segment 2, "Matter and Harmony" in the luminous poem: technological man and primitive woman.

The film continues along the trajectory set forth in the first two segments, contrasting images of primitive sculptures with rationalist architectures, nuclear explosions with comedians, humans with machines, individuals with crowds. The final segment, however, offers an alternative to this long history of oppositional forms representing humankind's violent past and present. In the final segment, "To All Mankind," Le Corbusier's rationalist architectures appear as the symbol of a future in which humankind has transcended its tribal roots. In this future, rationalism has saved humankind from itself, allowing for a newer, better version of humanity to emerge. The new human is

embodied in the form of the "Modular," Le Corbusier's rendering of the human body into perfectly-proportioned parts—an *espace acoustique*. The Modular Man morphs into modular architectures; both are washed in a magenta light that signals transcendence.

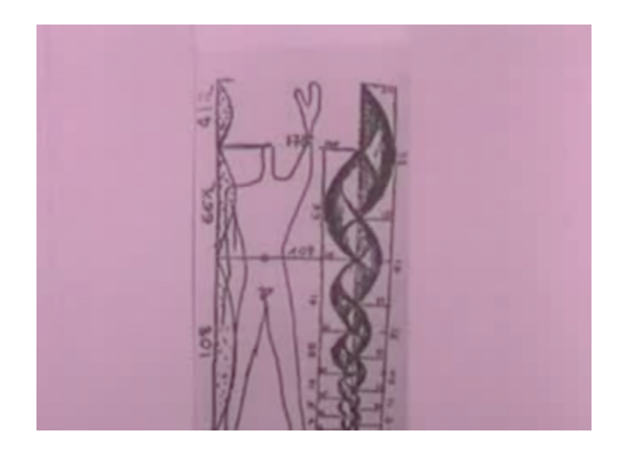




Figure 2.6: Stills from segment 7, "To All Mankind," in the luminous poem: the Modular Man, and modular forms.

Ultimately, the transcendence that is figured here is a transcendence from history itself. In the final moments of the film, children of different ethnicities appear, united in a single frame. They

are touching one another. The audience understands that in the future, there are no more tribes, only the common field of humanity. The final image is of a baby drenched in the rainbow of colors. These colors have illuminated the "story of all humankind," and have thus come to represent all of history. The baby is the newest possible form and a repository of all historical forms; it signals to the audience that in the future there is no more conflict, only unity.







Figure 2.7: From segment 7, "To All Mankind," in the luminous poem: one tribe, the new humanity.

2.6 "*Poème électronique*": Negotiating Acoustic and Visual Space

Although Le Corbusier had given Edgard Varèse a *carte blanche* with respect to his musical contribution to the Philips Pavilion, he also gave Varèse a copy of the filmic scenario, which was in Varèse's possession when he set about working on the music at the laboratories in Eindhoven.[42]

As with the other elements inside the Philips Pavilion, "*Poème électronique*" was constructed as a series of oppositional forms. Although it is widely considered in musicological discourses to comprise a set of abstract, rationalist "sound geometries," in my interpretation "*Poème électronique*"—like the other media inside the Philips Pavilion—coherently and legibly performed Le Corbusier's "story of all humankind." Since the music was recorded on multiple tracks, its juxtapositions could appear in sequential order or else as layered,

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[42] Trieb, *Space Calculated in Seconds*, 104. Trieb (172) also writes, "Le Corbusier himself wrote to Varèse and sent under separate cover twenty-seven sheets of the scenario for *Poème électronique* […]. A thorough description of the imagery of the *Poème électronique* followed."

simultaneous elements. In terms of sounds, these oppositional forms were manifested as extreme contrasts in: register, volume, consonance, duration, rhythmic regularity, layering, location, spatial distribution, movement in space, degrees of musical abstraction, and the rate of change of all of these.

"*Poème électronique*" opens with the rhythmic striking of a gong, abundant and resonant, with long, natural decays that fill the entire auditory field. This is quickly contrasted by a sequence of electronic attacks that peppers the auditory field in regular and irregular rhythms, at contrasting amplitudes and rates of decay. These percussive attacks are immediately submerged by multiple, sustained sirens that sweep across the auditory field, rising and falling dramatically in frequency and amplitude. Contrasting these rapid flows, a regular electronic pulse enters and slowly fades away, layered by multiple sine tones and electronic buzzes that pan quickly from side to side. Shattering glass, a quasi-linguistic, electronic quacking, and then a major-second electronic glissando—a motif that appears throughout the piece—appear and disappear in quick succession. All of this happens in the first minute of the music.

Varèse's music has often been analyzed in terms of its evolution as opposing forms, an interpretation which Varèse himself would have supported. Varèse had claimed, for example, that rhythm in his music was derived through "the simultaneous interplay of unrelated elements," and that form was a function of the interaction of "different shapes or groups of sound constantly changing in shape, direction, and speed, attracted and repulsed by various forces."[43]

Robert Cogan, who writes the program notes to "*Poème électronique*" for a remastered release of the recording on Neuma (1991), suggests that the piece is divided into two main sections and a coda, each section made of a pair of timbres engaged in a play of opposites: sirens and bells, oscillators and voices, and sirens and a pipe organ.[44] Another theorist describes the play of opposition between the high-pitched and low-pitched sounds, enhanced by the speaker arrangement inside the Philips Pavilion:

> High and low frequencies in the pavilion were divided between "high note" and "low note" speakers. Two-way

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[43] L. Alcopley, "Edgard Varèse on Music and Art: A Conversation between Varèse and Alcopley," *Leonardo* 1/2 (1968): 190-191
[44] See Robert Cogan, "Varèse: An Oppositional Sonic Poetics," *Sonus* 11/2 (1991): 26-35.

> reproduction systems have been a standard technique for creating efficient reproduction over the entire frequency spectrum, but the way in which it was layed [sic] out in the pavilion reinforced spatial differentiation between high and low. The low note speakers were mounted behind the concrete balustrades that separated the audience from the lighting and projecting equipment near the pavilion walls; the high note speakers were arranged in clusters and 'sound routes' on the pavilion shell.[45]

In "*Poème électronique*," the opposing forces that had been so central to Varèse's compositional process were not only measured out in terms of the acoustic qualities of sounds. They were also measured out in terms of their ability to negotiate acoustic (sensed) and visual (structured) modes of perception. In the music, Varèse assembles purely electronic, abstract, synthesized sounds. He contrasts these with *concrète* recordings that are loaded with "meaning." The abstract, electronic sounds function almost exclusively as aural analogies to geometrical structures. Electronic sirens, for example, which are heard throughout the work, are a musical representation of the hyperbolic paraboloid curves that formed the pavilion's exterior architecture. Varèse claimed that:

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[45] Densil Cabrera, "Sound Space and Edgard Varèse's *Poème électronique*," M.A. thesis (University of Technology, Sydney, 1994), 82.

> It was Helmholtz who first started me thinking of music as masses of sound evolving in space, rather than, as I was being taught, notes in some prescribed order. I must have been about twenty-two when I read Helmholtz's experiments with sirens in *Théorie psychologique de la musique*. Later, I made some modest experiments of my own and found I could obtain beautiful parabolic and hyperbolic curves of sound which seemed to me equivalent in the visual domain.[46]

The sirens in "*Poème électronique*" therefore function as rational, abstract geometrical forms, as aural analogues to visual geometric structures. Conversely, many of the concrète recordings that are present in the music are unambiguously symbolic and "meaningful."

Conforming to the conceptual polarities that were present in the other media, these "irrational" sounds are often coded primitive and feminine. Such categories are evoked, for example, in the ritual gong sounds that open the composition, in the chanting heard towards the end, and the female voice that is heard in various stages of moaning, wailing, crying, and ecstasy. Near the mid-point of the composition, this voice is heard howling unintelligible vowels, her vocally-articulated body a repository of matter and emotion. Unlike the electronic sounds that surround it, the female voice is untouched by technological

[46] Alcopley, "Edgard Varèse on Music and Art," 198.

advances and scientific progress. An aural counterpart to the African goddess shown in the film—and the hanging female sculpture—this voice embodies the primordial essence of humanity. Towards the end of "*Poème électronique*," this musical "Eve" sings a sequence of unadorned vowels that develops into an impossibly primal scream that seems to reach beyond the limits of human perception. One critic writes that:

> Regardless of the absolute pitches involved, the human voice makes this ascent sound as if it reaches higher than any of the other ascents (except, perhaps, the final one), and this is reinforced by the sense of recession created by a reduction in loudness right at the end, which can also be described as an even more marked reduction in auditory volume [...]. In the Philips Pavilion this sense of ascension (or at least elevation) was also incarnated by the sculptured female figure that was suspended high in one of the pavilion's peaks, near its exit.[47]

As was the case with the luminous poem, the sonorous poem constructs a "story of all humankind" by contrasting past, present, and future versions of humanity. Tribal drumming and primitive (preliterate) wailing are juxtaposed with the noisy by-products of industrialism and a technologically-enhanced, purely synthetic future. In an early letter to Le Corbusier about his plans for "*Poème électronique*," Varèse wrote

[47] Cabrera, "Sound Space," 91.

that he imagined "beautiful fragments of ancient liturgical music set against a background of modern music, disrupted by violent or impersonal bursts….of modern music."[48] Sounds are therefore not only contrasted in terms of their acoustic qualities, but also for the relative positions that they occupy within an historical framework. The final moments of the music, like the final moments of the film, contain a utopian vision of the future. While the music had so far proceeded at a relentless rate of contrasting forms, the last thirty-five seconds are reserved for the development of a single sound, a musical equivalent of the film's rainbow-colored baby: a single, rising electronic tone that moves upwards in space, a metaphor for the transcendent human spirit:

> The final picture—a child accompanied by a piercing sound and an unbridled crescendo—offers us Le Corbusier's evangel without pathos: the human's unique lot is, in the end, for good over evil and to continue.[49]

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[48] Trieb, *Space Calculated in Seconds*, 170.
[49] Ibid., 223.

2.7 Conclusion

The Philips Pavilion was constructed out of the same conceptual binaries that informed Marshall McLuhan and Edmund Carpenter's theories of acoustic and visual space; and "*Poème électronique*" vividly illustrated these tensions. In the music, the acoustic/visual binary was performed through sonic representations of juxtapositions like primitive/advanced and rational/irrational. More immediately, however, the spatialization of sounds similarly illustrated these tensions by presenting sounds as objects located within a three-dimensional, Euclidean space. Through this mapping, Varèse effectively "visualized" acoustic space, rendering the (perceived) chaotic and indefinite space of hearing definite and linear. The perception of sounds therefore shifted from the emotional and primordial realm of acoustic space to the logical and enlightened realm of visual space. As Varèse himself would claim, "Music has its place in the company of mathematics, geometry, and astronomy."[50] Through its objectification of sound-space, "*Poème électronique*" aimed to place music within

[50] Trieb, *Space Calculated in Seconds*, 28.

the realm of knowledge, which in Western societies has been biased towards the study of the object. According to McLuhan and Carpenter:

> We suppress or ignore much of the world as visually given in order to locate and identify objects in three dimensions. It is the objects which compel our attention and orient our behavior; space becomes merely that which must be traversed in getting to or from them.[51]

The advent of magnetic tape provided a fertile medium in which a new musical "objectivity" could develop. Tape suggested that sound could take the form of a material, plastic object, and that this object could be studied and manipulated like other objects. At the Radiodiffusion Française, where Varèse had undertaken a residency in 1954 in order to realize the tape parts for "*Déserts*," large-scale efforts were undertaken in order to organize sound according to such "objective" values as mass, dynamics, and grain. Researchers at the RDF also developed systematic procedures for studying the "typology" and the "morphology" of sound objects, and attempted to classify them, as with more traditional types of information, within vast libraries of "found sounds."

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[51] Carpenter and McLuhan, "Acoustic Space," 67.

Varèse was not immune to these concerns, writing to Le Corbusier at the outset of the project that, "I have recently invented the term 'tape music.' By this I intend that musical elements will be recorded one after the other on wire or tape, thereby functioning as a library of sounds."[52] Projects to collect, classify, and "scientifically" analyze sound objects reveal an underlying desire to territorialize sound objects, to locate their distinguishing characteristics, and "place" them in such a way that they might be objectively known.

In this wider cultural context, I hear Varèse's negotiation of acoustic and visual space in "*Poème électronique*" as: (1) measuring the sensuality of sound and the subjectivity of hearing against the rationalization of sound objects, and (2) operating within a larger language of control and territorialization in which objects are fixed, located, and defined so that they can be known.

A project like "*Poème électronique*" cannot adequately be represented through strictly "musical" considerations. Its negotiations of space—a literal space, and a culturally-situated conceptual

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[52] Trieb, *Space Calculated in Seconds*, 168-170. It is not generally accepted that Varèse invented the term "tape music."

space—are as compelling as any sonic determinant. By imagining acoustic space as an empty container in which objects and planes of sound could be mapped out along the axioms of Euclidean geometry, "*Poème électronique*" performed a conceptual transposition, conferring to a "primitive" acoustic space qualities that had formerly been reserved for visual space: its linear ordering, its legibility, its rationality. In this sense, the terms of Varèse's negotiation (of acoustic and visual space) were much more critical than merely determining the location of sounds. They were also a matter of music's perceived ability to function in ways that were thought to be exclusive to visual media. With "*Poème électronique*," music effectively took its place in visual space.

CHAPTER THREE

EVERYDAY SPACES+SOCIAL SPACES

3.1 Introduction: A Situationist Intervention

Construct daily life and realize history.

-Raoul Vaneigem, *Revolution of Everyday Life*[1]

Mere blocks away from where the Philips Pavilion was digesting and spitting out shell-shocked audiences, a different group of artists were in the process of articulating an altogether different conception of space: space as a product of social relations.[2] On April 12, 1958—ten days before the Philips Pavilion was unveiled at the Brussels World Fair—a group of radical pan-European artists known as the Situationist International (SI) staged one of its first public interventions on the fairgrounds. Their mission was to disrupt a meeting of prominent art

[1] Raoul Vaneigem, *Revolution of Everyday Life*, trans. Donald Nicholson-Smith (London: Left Bank Books and Rebel Press, 1983 [1967]). Reprinted in Raoul Vaneigem, *Revolution of Everyday Life*, http://library.nothingness.org/articles/SI/en/display/210.
[2] Le Corbusier imagined the Philips Pavilion as a kind of "stomach" that would digest its audiences.

critics who had been invited as an "attraction" to the Fair. The SI arrived at this meeting of art critics, armed with leaflets containing a sort of manifesto, which read in part:

> To you, this gathering is just one more boring event. The Situationist International, however, considers that while this assemblage of so many art critics as an attraction of the Brussels Fair is laughable, it is also significant….
>
> The main shortcoming of modern art criticism is that it has never looked at the culture as a whole nor at the conditions of an experimental movement that is perpetually superseding it….
>
> Disperse, fragments of art critics, critics of fragments of art. The Situationist International is now organizing the integral artistic activity of the future. You have nothing more to say. The Situationist International will leave no place for you. We will starve you out.[1]

Lead by the French writer and filmmaker Guy Debord, the Situationists had assembled in Italy the previous summer, bringing together members of different avant-garde art groups including the Lettrist International and the Movement for an Imaginist Bauhaus. Among the objectives of SI members was to study and transform the relationships between individuals, societies, and urban environments. They believed that environments determined and fixed social

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[1] See "Situationist International Archives," http://www.nothingness.org/SI/

behaviors, and that contemporary modes of urbanism were forms of repressive social conditioning. Decades before the idea of a "liquid architecture" was proposed—as an architecture defined as "that self in the act of becoming its own shelter"—the Situationists proposed a "permanent transformation" of urban environments through individual spatial interventions or "constructed situations."[2]

Before they arrived at the Fair, the Situationists called the art critics, reading their manifesto to them over the telephone. At the Fair, they threw copies of the manifesto at the critics and at audiences who had gathered to hear them speak; they also drove around the Brussels fairgrounds, launching copies of the manifesto out of moving cars at innocent passers-by. If Varèse and Le Corbusier were still dealing with absolutist notions of space in the Philips Pavilion, the Situationists were,

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[2] The architect Marcos Novak writes on liquid architecture that, "If we described liquid architecture as a symphony in space, this description sould still fall short of the promise. A symphony, though it varies within its duration, is still a fixed object and can be repeated. At its fullest expression a liquid architecture is more than that. It is a symphony of space, but a symphony that never repeats and continues to develop. If architecture is an extension of our bodies, shelter and actor for the fragile self, a liquid architecture is that self in the act of becoming its own changing shelter. Like us, it has an identity; but this identity is only revealed fully during the course of its lifetime." See Marcos Novack, "Liquid Architectures in Cyberspace," http://www.zakros.com/liquidarchitecture/liquidarchitecture.html

quite oppositely, concerned with the particular, contingent construction of social and cultural spaces. They wanted to cultivate an awareness of the individual's role within the production of these spaces and vice-versa, and they wanted to encourage new spatial forms to develop through this awareness.

In their manifesto, the SI condemned what they called "fragments of critics, critics of fragments of arts," and they disparaged art criticism for its inability to consider "consider culture as a whole." Along with many of their contemporaries, the Situationists were concerned that capitalism and urbanism had fractured and fragmented everyday life. Their proposed "integral artistic activity of the future" would ostensibly remedy this situation, by offering tools through which individuals could re-connect and re-integrate their lives with their environments, and in the process re-connect with "culture as a whole."

When sound installation art emerged in the late 1960s, it grew out of these very same concerns. In this chapter, I examine the ways in which the early development of sound installation art can be linked to larger cultural debates on the social production of space, and on the intersections between art, architecture, and everyday life. Max

Neuhaus, an American percussionist-turned-sound installation artist, coined the term sound installation art in the late 1960s. He proposed it as an artform that could develop within everyday spaces, and that could ignite new relationships between social actors and their everyday environments.

The first part of this chapter constructs a brief inventory of 20th-century art and philosophy projects centered upon articulating and transforming the everyday; these include the practices of Marcel Duchamp, John Cage, the Surrealists, the Dadaists, the Situationists, Fluxus artists, Gaston Bachelard, and Henri Lefebvre. Following this, it situates Max Neuhaus's idea of sound-installation art as an everyday production within this larger cultural and historical context. It introduce several of Neuhaus's most important works: *Listen*, a series of listening walks that served as an important precursor to Neuhaus's sound installations; *Drive-In Music*, his first sound installation; and *Times Square*, Neuhaus's most widely-visited public sound work. Finally, this chapter introduce the work of a contemporary Finnish sound installation artist, Heidi Fast, who stages spatial interventions in peoples' everyday environments: homes, apartment buildings, and streets. Fast considers her sound works to be "temporal social sculptures"; she carries them

out with the idea that they provide a framework for unique social interactions, and that they alter peoples' relationships to the everyday spaces they inhabit.

3.2 Western Art, Music, and the Everyday: An Inventory

> *The indirect criticism of the everyday in works of the past which emerged from that everyday appeared only too frequently to devalue it. People who gather flowers and nothing but flowers tend to look upon the soil as something dirty.*
>
> -Henri Lefebvre, *Critique of Everyday Life*[3]

On the cover of Henri Lefebvre's *Everyday Life in the Modern World* (1968) there is a black-and-white photo of a nuclear explosion, a mushroom cloud in full bloom. This photo is juxtaposed with a color drawing of a kitchen scene—a caricature of middle-class domesticity, complete with a checkered tablecloth and a bottle of milk. Published a year later Lefebvre's book, the art anthology *Fantastic Architecture*

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[3] Henri Lefebvre, *Henri Lefebvre, Key Writings*, ed. Stuart Elden, Elizabeth Lebas and Eleonore Kofman (New York: Continuum, 2003), 87.

(1969) opens with several pages of casual, handwritten notes. Opposite these pages there is, again, a black-and-white photo of a nuclear explosion. The message with both designs is the same. Like the unfurling atom—a symbol of unchecked power, uncontainable and superhuman, perhaps the most spectacular event in all of human history—the all-too-human, the casual, the mundane, the domestic, the common, and the everyday are sites that are rife with revolutionary potential.

Between the late 1950s and the late 1960s, the subject of the everyday moved from the margins to the center of avant-garde Western art, music, and philosophy. A period remembered for the vibrancy of grassroots politics and popular resistance movements, the spaces of everyday life—wherein the "power of the people" could be most fervently expressed—entered the lexicon of the Western avant-garde with unprecedented force; this period witnessed myriad projects that articulated or framed the everyday in order to transform it. As Henri Lefebvre, an early philosopher of everyday life, would comment that,

"taken in its Kantian sense, critique was not simply knowledge of everyday life, but knowledge of the means to transform it."[4]

Mid-century avant-garde projects concerned with the everyday were not without precedence in the 20th-century. As early as 1917, Marcel Duchamp's "readymades" plainly rendered the artist's ethos that, "Deep down, I'm enormously lazy. I like living, breathing better than working."[5] Duchamp's 1917 sculpture *Fontaine*, which consisted of a urinal, is widely considered to have introduced the mundane object into the rarefied spaces of the art gallery and the museum. At approximately the same time that Duchamp began to exhibit his readymades, sounds culled from the everyday world (specifically from the burgeoning industrial landscape) were heard throughout Futurist concerts in Italy, broadcast over *intonarumori* (noise-makers). The everyday can therefore be said to have made its appearance in the early part of the 20th-century in the form of detritus: otherwise disposable or unremarkable objects which were newly "found," rescued from their over-accumulation in the everyday world.

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[4] Ibid., xvii.
[5] Helen Molesworth, "Work Avoidance: Everyday Life in Marcel Duchamp's Readymades," *Art Journal* 57/4 (1998): 50.

In the 1920s the Surrealists, who adopted Duchamp's "life-before-work" mantra, attempted to transcend the banality of everyday life by reinserting the unconscious into it. They developed methods such as Automatic Writing—where the hand freely forms verse on paper, conceivably without any conscious effort on the part of the author—such that these would pertain to "all of life's circumstances."[6] Automatic Writing was therefore practiced while doing everyday activities, like reading or daydreaming. In a similar vein, the Situationist practice of Psychogeography— whereby a wanderer maps out his or her thoughts, moods, and behaviors with respect to the lived environment—was devised as a method for resisting fixed everyday architectures. Echoing Henri Lefebvre, Guy Debord wrote that, "To study everyday life would be a completely absurd undertaking, unable to grasp anything of its object, if this study was not explicitly for the purpose of transforming everyday life."[7] Psychogeography was therefore used as a tool for connecting everyday activities (wandering, thinking, feeling), to the larger project of transforming everyday spaces.

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[6] André Breton, "Manifeste du Surrealisme" (1924).

[7] Guy Debord, "Perspectives for Conscious Changes in Everyday Life," (1961), http://library.nothingness.org/articles/SI/en/display/89.

In the early 1950s, John Cage silenced the sounds of conventional concert music, leaving everyday, incidental sounds in their stead. Fluxus artists who studied with Cage wrote scores that blurred the distinction between specialized art practices and everyday occasions. Alison Knowles's "Proposition" (1962), for example, instructed the performer to "Prepare a salad." Allan Kaprow, an artist and theorist who had studied with Cage and who published the collected *Essays on the Blurring of Art and Life* (1993), developed the concept of "Happenings" in the late 1950s. These were unrehearsed, mixed-media performances that abandoned traditional audience-performer hierarchies and aimed to approximate the chaos and unpredictability of everyday life in terms of their scope and their content.

In 1964, the French philosopher Gaston Bachelard published *The Poetics of Space: The Classic Look at How We Experience Intimate Places*; in it, Bachelard explored the image of the home and "intimate" architectures (i.e. the cellar and the attic) in Western poetry and literature, in order to trace the impact of these upon the Western social imagination. Departing from the premise that "all really inhabited space bears the essence of the home," several of Bachelard's ideas

seem particularly well-suited to a discussion on the early history of sound installation art.[8] In *The Poetics of Space*, Bachelard wrote that:

> [If] I were asked to name the chief benefit of the house, I should say: the house shelters daydreaming, the house protects the dreamer, the house allows one to dream in peace.
>
> The values that belong to daydreaming mark humanity in its depths. ... the places in which we have experienced daydreaming reconstitute themselves in a new daydream, and it is because of our memories of former dwelling-places are relived as daydreams that these dwelling-places of the past remain in us for all time.[9]

As early as 1962, before the term “sound installation art” was coined by Max Neuhaus, the American composer La Monte Young and the American light artist Marian Zazeela conceived of a continuous sound-and-light environment, calling this work the *Dream House*. The *Dream House* has taken several different forms since Young and Zazeela imagined it, as an utopian space in which musicians and artists could live and collaborate for twenty-four hours a day. Today, it exists in lower Manhattan as a “total environmental set of frequency structures

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[8] Gaston Bachelard, *The Poetics of Space: The Classic Look at How We Experience Intimate Spaces*, trans. Maria Jolas (Boston: Beacon Press, 1994 [1958]), 5.
[9] Bachelard, *The Poetics of Space*, 6.

in the media of sound and light."[10] Continuous synthesized drones (combinations of 35 sine tones) emanate from speakers, creating a dense, harmonically complex sound environment; this is combined with a visual environment of magenta lights, hanging sculptures, and mobiles by Zazeela. The musicologist Jeremy Grimshaw writes that,

> In his *Lecture 1960*, composer La Monte Young proposed the idea of "getting inside a sound"—an invocation of the spatial dimension meant to encourage unusual patience and microscopic attentiveness on the part of the listener. This idea of aural "interiority" served as an apt metaphor for experiencing the elongated but sparsely-furnished durations of Young's early compositions. Over the course of the subsequent decade, however, Young made this metaphor literal [in the *Dream House*]…
>
> These environments complete the literalization of Young's spatial metaphor: one doesn't experience this music as it goes past in time, but as one literally "gets inside" its sonic space. Because of the harmonic complexity of the pitch array, each point within the three-dimensional space of the sonic environment offers a different acoustic experience; the supposedly static sound becomes vibrantly active as one moves through it. [11]

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[10] See La Monte Young and Marian Zazeela, "Dream House: Seven+Eight Years of Sound and Light," http://www.melafoundation.org

[11] Jeremy Grimshaw, "Getting Inside the Sound: La Monte Young's Dream House as a Model for Aural Architecture," *Architecture/Music/Acoustics* conference (Ryerson University, June 8-10 2006).

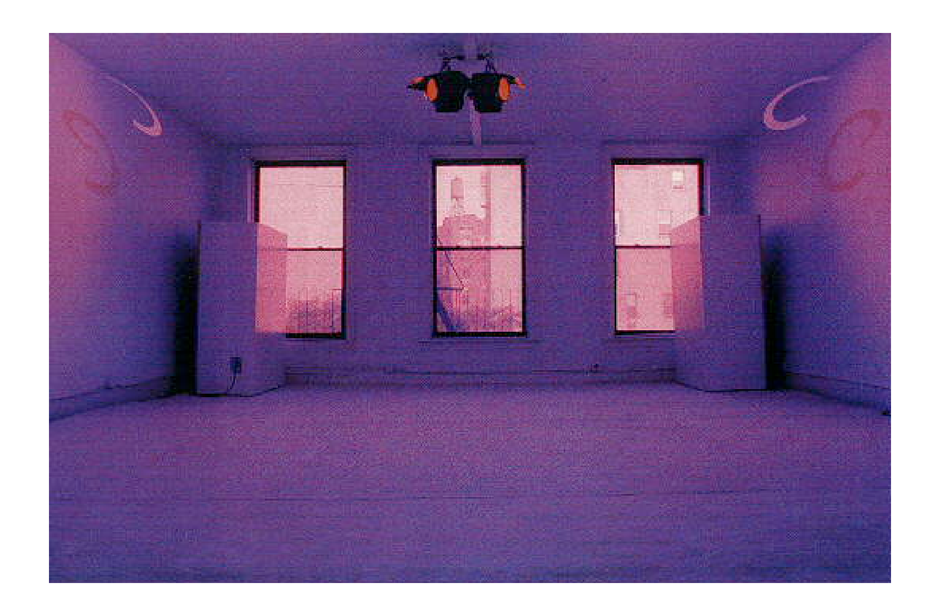


Figure 3.1: La Monte Young and Marian Zazeela, *Dream House* (1963-ongoing). Photographer: Marian Zazeela (1993).[12]

The *Dream House* is one of the earliest works in which sound is posited as an environmental structure; further, it is conceived of as a "total" environment, one that can be experienced in different ways depending on the particular location of the listener. I introduce it here as an example of the primacy of the spatial imagination within the postwar Western musical avant-garde, and as an example of a work that, like Gaston Bachelard's writings, commingles a poetics of space with a poetics of reverie.[13]

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[12] See La Monte Young and Marian Zazeela, "Dream House: Seven+Eight Years of Sound and Light," http://www.melafoundation.org

[13] Ibid.

In his writings, Bachelard was critically concerned with the idea that the rooted, rural home was disappearing due to increasing industrialization and urbanization. Following Bachelard, the French Marxist philosopher Henri Lefebvre pioneered critiques of urbanization upon witnessing the transformation of traditional everyday living environments through an increasingly bureaucratized and institutionalized economy. Lefebvre's interpretation of "everydayness" (*quotidienneté*) was centered upon issues of alienation and fragmentation. Extending Marx's position, Lefebvre argued that capitalism not only organized relations of production such that it alienated workers, but that all aspects of daily life were subject to capitalist exploitation, only to be resold as spectacular commodities.

In 1947 Lefebvre published *Critique de la vie quotidienne* (*Critique of Everyday Life*), in which he suggested that everyday social routines are sites of situated possibilities—potentially revolutionary sites. As a way to counteract alienation within everyday life, Lefebvre proposed the idea of "moments [lived] outside culture," for example, the "moment" of individual love. Lefebvre's "moments" resonated closely with the Situationists' idea of "constructed situations":

> **Lefebvre:** [The Situationists] more or less said to me… "What you call "moments," we call "situations," but we're taking it farther than you. You accept as "moments" everything that has occurred in the course of history (love, poetry, thought). We want to create new moments."[14]
>
> …This was the conception with *Critique of Everyday Life*: to create an architecture that would itself instigate the creation of new situations.[15]

Lefebvre's writings were influential within the French artistic avant-garde and vice-versa. It was, in fact, the Surrealist leader André Breton who had introduced Lefebvre to the writings of Marx and Hegel. And, between 1957 and 1961, Lefebvre collaborated with the Situationists in group readings at the Paris Commune, where they convened the "Group for Research on Everyday Life."

Lefebvre's writings bridged two areas that would be critical to the emergence of sound installation art: philosophies of everyday life and philosophies of social space. Almost thirty years after writing *Critique de la vie quotidienne*, Lefebvre published *La Production de l'espace* (*The Production of Space*) (1974), in which he put forth one of the first substantial theories of social spatialization. In *La Production de*

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[14] Kristin Ross, "Lefebvre on the Situationists: An Interview," *October* 79 (1997): 72.
[15] Ibid., 70-71.

l'espace Lefevbre argued that space was not an absolute or hegemonic quantity that exists outside the bounds of historical time. He suggested, instead, that space is produced both materially and conceptually, and that it is a product of lived experience, emerging at the intersection of the body, action, and spatialization. Lefebvre wrote:

> Not so many years ago, the word "space" had a strictly geometrical meaning: the idea it evoked was simply that of an empty area. In scholarly use it was generally accompanied by some such epithet as Euclidean, isotropic, or infinite, and the general feeling was that the concept of space was ultimately a mathematical one. To speak of "social space," therefore, would have sounded strange.[16]

In *La Production de l'espace* Lefebvre wrote that there are three different processes that contribute to the production of space: *spatial practice* (processes of production and reproduction, i.e. power and culture), *representations of space* (how space is represented in language), and *representational space* (the lived, everyday experience of space). He wrote:

> A conceptual triad has now emerged…

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[16] Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson-Smith (Oxford: Blackwell, 1991 [1974]), 2.

1. Spatial practice, which embraces production and reproduction, and the particular locations and spatial sets characteristic of each social formation. Spatial practice ensures continuity and some degree of cohesion. In terms of social space, and of each member of a given society's relationship to that space, this cohesion implies a guaranteed level of competence and a specific level of performance.

2. Representations of space, which are tied to the relations of production and to the "order" which those relations impose, and hence to knowledge, to signs, to code, and to "frontal" relations.

3. Representational spaces, embodying complex symbolisms, sometimes coded, sometimes not, linked to the clandestine or underground side of social life, as also to art (which may come eventually to be defined less as a code of space than as a code of representational spaces).[17]

Implicit in Lefebvre's "conceptual triad" was an understanding of a universal "right to space" of all people; this is in contrast to a capitalist logic that frames spatial relationships within the realm of privatized property ownership. In encouraging alternative spatializations, Lefebvre upheld clandestine spatial practices like squatting and illegal immigration; and, he looked to art for examples of extended spatial imaginings.

[17] Ibid., 33.

One such project was the 1969 art anthology *Fantastic Architecture*, which included contributions by Surrealists artists and Fluxus artists as Wolf Vostell, Joseph Beuys, and Dick Higgins, among many others. For his contribution, a photo collage, Wolf Vostell placed a cathedral square in the middle of a busy highway intersection. A handwritten note by Joseph Beuys suggested raising the Berlin Wall by five centimeters ("better proportion!"). In the handwritten introduction, Vostell wrote:

> THIS DOCUMENTATION OF IDEAS
> AND CONCEPTS OF A NEW
> POLYMORPHOUS REALITY IS
> OFFERED AS EVIDENCE OF THE
> NEW METHODS AND PROCESSES
> THAT WERE INTRODUCED BY
> FLUXUS, HAPPENINGS AND POP.
> A DEMAND FOR NEW PATTERNS
> OF BEHAVIOR – NEW UNCONSUMED
> ENVIRONMENTS.
>
> THE ACCENT IN ALL THE WORKS
> IN THIS BOOK LIES ON CHANGE –
> -- i.e. EXPANSION OF PHYSICAL
> SURROUNDINGS, SENSIBILITIES,
> MEDIA, THROUGH DISTURBANCE
> OF THE FAMILIAR.
> ACTION IS ARCHITECTURE!
> EVERYTHING iS ARCHiTECTURE!
> [...]
>
> OUR PROJECTS –
> OUR ENVIRONMENTS ARE MEANT

TO FREE MAN. _______________
ONLY THE REALIZATION OF
UTOPIAS WIL MAKE MAN
HAPPY AND RELEASE HIM
FROM HIS FRUSTRATIONS!
USE YOUR IMAGINATION!
JOIN IN .... SHARE THE POWER!
SHARE PROPERTY![18]

In summary, the projects highlighted here are notable because they posit that the production of space and the production of everyday life are inextricable; and because they suggest that everyday life can be altered or transformed through individual spatial interventions. In the following paragraphs, I situate the emergence of sound installation art within this wider cultural context. When Max Neuhaus proposed the concept of "sound installation art" in the late 1960s, it was as a kind of art that could intersect seamlessly with peoples' everyday lives, and that could transform everyday spaces. My discussion of Neuhaus's works stresses the ways in which spatial interventions with sound can be considered to be transformative, acting as sites of resistance with respect to dominant spatial logics.

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[18] See Wolf Vostell and Dick Higgins, ed., *Fantastic Architecture* (New York: Something Else Press, 1969).

3.3 *LISTEN*

> *As a percussionist I had been directly involved in the gradual insertion of everyday sound into the concert hall, from [Luigi] Russolo [a Futurist composer] through [Edgard] Varèse and finally to [John] Cage who brought live street sounds directly into the hall. I saw these activities as a way of giving aesthetic credence to these sounds—something I was all for—but I began to question the effectiveness of the method. Most members of the audience seemed more impressed with the scandal than the sounds, and few were able to carry the experience over to a new perspective on the sounds of their daily lives.*

-Max Neuhaus[19]

Immediately preceding what would be his first sound installation, Neuhaus carried out a series of public listening exercises called *LISTEN*. Through these exercises, Neuhaus he suggested that an active, focused listening could bring about a transformation of "space" into "place," meaning that an otherwise meaningless environment could be rendered meaningful simply by listening to it.

Max Neuhaus was born in 1939 and studied percussion at the Manhattan School of Music. By the mid-1960s, he had already toured

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[19] Max Neuhaus, "LISTEN," (1988), http://www.max-neuhaus.info/soundworks/vectors/walks/LISTEN/

extensively in Europe and the United States, performing works by preeminent composers within the Western musical avant-garde, including John Cage, Pierre Boulez, and Karlheinz Stockhausen. In his early twenties Neuhaus decided to end his illustrious percussion career, having released a recording of percussion repertoire for Sony Masterworks. Citing Cage as an influence, Neuhaus had turned his attention from the sounds of the concert hall to the sounds of the everyday world; he embarked on multiple projects in which he studied acoustics and sonic environments. Rather than bring these everyday sounds into musical settings, however, Neuhaus wanted to alter everyday spaces themselves by staging sonic interventions within them.

Between 1966 and 1976, Neuhaus took audiences on fifteen separate "listening walks." When audiences arrived at the designated location, he stamped the word "LISTEN" onto their hands, and lead them outdoors in order to explore their aural surroundings. Neuhaus writes:

> I felt that Cage's [music] or the result of having concert audience sitting in a hall and bringing sounds from the outside in fact didn't open up their ears. Contemporary music society only saw these works as a scandalous thing to do, esthetically scandalous.

> And this wasn't my interest; my interest was to refocus and I think Cage's original interest too was to refocus attention on sounds that we live with every day. I felt that perhaps the way to do this was not to bring the sounds in but to take the people out.[20]

In the first manifestation of *LISTEN*, Neuhaus met with fourteen friends at the corner of Avenue D and East 14th Street in Lower Manhattan, and led them toward the East River, where they heard "some spectacularly massive rumbling."[21] They continued until they reached Neuhaus's apartment in the Lower East Side, where Neuhaus performed some of his percussion repertoire for them. In subsequent realizations of *LISTEN*, Neuhaus focused exclusively on the walking portion of the listening exercise:

> I would ask the audience at a concert or lecture to collect outside the hall, stamp their hands and lead them through their everyday environment. Saying nothing, I would simply concentrate on listening…The group would proceed silently, and by the time we returned to the hall many had found a new way to listen for themselves.[22]

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[20] See Max Neuhaus and Ulrich Loock, "A Conversation Between Max Neuhaus and Ulrich Loock, Milan, March 25 1990," in Max Neuhaus, *Elusive Sources and 'Like' Spaces* (Turin: Galleria Giorgio Persano, 1990). Reprinted at http://www.max-neuhaus.info/bibliography/ConversationwithUlrichLoock.htm
[21] Max Neuhaus, "LISTEN," (1988), http://www.max-neuhaus.info/soundworks/vectors/walks/LISTEN/
[22] Ibid.

With *LISTEN*, Neuhaus wanted to *permanently* alter audiences' relationships to their everyday environments, by introducing them to a focused mode of listening that could be integrated into their daily activities. Neuhaus characterizes his process of listening during these walks as being so intense and focused that it transformed the other participants' listening habits by sheer virtue of proxy. For Neuhaus, the mere act of focused listening brought about a transformation of "space into place."[23] He contended that everyday spaces—spaces to which people might not be especially attached—were rendered "meaningful" through the very act of focused listening. Becoming attuned to the sounds of an environment meant shifting from hearing noise to hearing sound; this shift from noise-to-sound was a way of investing meaning ("place") into an otherwise meaningless field ("space").

3.4 "Sound Installation Art": An Everyday Poetics

The spatial practice of a society secretes that society's

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[23] des Jardins, ed., *Max Neuhaus, Sound Works*, *Volume 1*, 130.

> *space; it propounds and presupposes it, in a dialectical interaction; it produces it slowly and surely as it masters and appropriates it. From the analytic standpoint, the spatial practice of a society is revealed through the deciphering of its space.*
>
> -Henri Lefebvre, *The Production of Space*[24]

Immediately following his *LISTEN* series, Neuhaus created his first sound installation, *Drive-In Music* (1967). For this work, Neuhaus placed seven radio transmitters along a stretch of road in Buffalo—a city which, he observed, is primarily navigated by car. He set each of the seven transmitters to the same dial; each transmitted different combinations of sine tones. In order to hear the work, audiences had to drive along that stretch of road, with their car radios tuned to frequencies that coincided with that of the transmitters. The frequency, amplitude, and combinations of sine tones were determined by such environmental factors as weather conditions and the time of day. Likewise, the speed and the direction of the passing cars determined the sonic result.

[24] Henri Lefebvre, *The Production of Space*, 38.

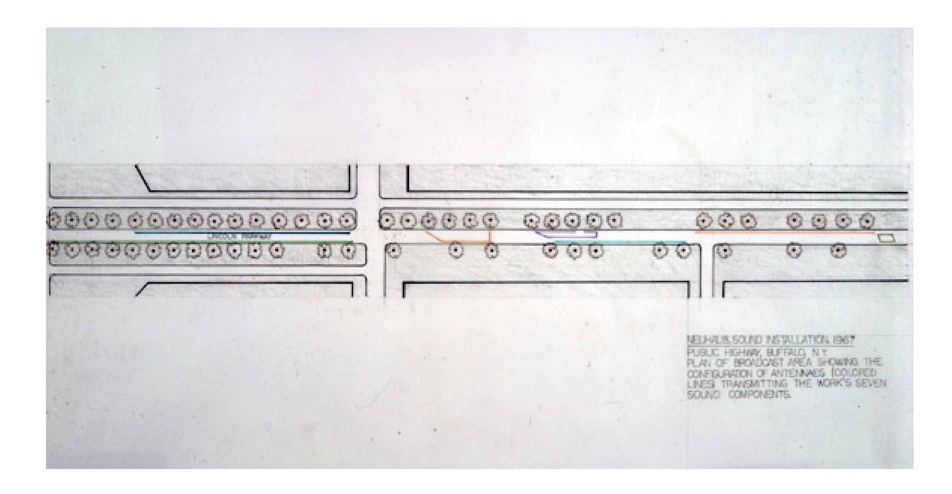


Figure 3.2: Max Neuhaus, *Drive-In Music* (1967). Drawing by Max Neuhaus.[25]

With *Drive-In Music*, Neuhaus had created a sound work that could intersect seamlessly with everyday activities. *Drive-In Music* could be experienced continuously while performing an everyday task; it had no conspicuous beginning or ending (the work "ended" when the batteries used to power the transmitters died); it was indeterminate, interactive, and, most importantly, it could be happened-upon by chance instead of being consciously consumed as a work of art.

In the late 1960s, Neuhaus coined the term "sound installation" in order to describe works like *Drive-In Music*, in which sounds were placed "in space rather than in time."[26] In the following interview 1982 with

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25 See Max Neuhaus, "Passage," http://www.max-neuhaus.info/soundworks/vectors/passage/

26 des Jardins, *Max Neuhaus, Sound Works*, *Volume 1*, 130.

William Duckworth, Neuhaus elaborates on his definition of sound installation art:

> **Duckworth:** How do you categorize your work? Is it all equally musical?
>
> **Neuhaus:** In terms of classification, I'd move the installations into the purview of the visual arts even though they have no visual component, because the visual arts, in the plastic sense, have dealt with space. Sculptors define and transform spaces. I create, transform, and change spaces by adding sound. That spatial concept is one which music doesn't include; music is supposed to be completely transportable.
>
> **Duckworth:** What word is best to describe these works which deal with space?
>
> **Neuhaus:** I don't know whether there is one. I called them sound installations because the pieces were made from sound, and I was using the word 'installation' in the visual arts context for a work that is made for a specific place. It seemed like the cleanest description.
>
> When I coined the term in the early seventies, it was neutral; it didn't mean anything. People would ask me what I was talking about, sound installation? I had found a term that didn't already mean something to describe something new: sound works without a beginning or an end, where the sounds were placed in space rather than time.
>
> Now, in the visual arts, people often use sound recordings of voices and things as part of a visual work and call it a sound installation. [...] I don't have anything against it; it can even be interesting. But it doesn't have much to do with what I do [...].
>
> Also, people working in the field of music are beginning to

> use the term to describe what are essentially concerts of electronic music on tape. I am a bit disappointed. I didn't invent a new word to try and make extra long concerts of tape music sound like something new.
>
> **Duckworth:** So you think of yourself as having invented the concept of sound installation?
>
> **Neuhaus:** Yes. I think that *Drive-in Music*, my first installation, was that moment […]
>
> When I began I didn't have the term "sound installation" in mind. I wanted to make a work that was part of people's daily activity. Rather than something that they went to at a specific time, an event, I wanted it to be continuous. I wanted it to be something they could pass through at any time, not something they had to plan and go to.[27]

Instead of organizing sounds within a chronological sequence, in *Drive-In Music* Neuhaus had organized sounds spatially: his principal considerations in composing *Drive-In Music* were factors like location, setting, placement, environmental interaction, spatial dimension, and spatial trajectory. The sounds in *Drive-In Music* were not meant to be heard as a succession of tones, but instead experienced as an aural environment which, like other environments, could be mapped-out, inhabited, and navigated.

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[27] Interview edited from transcript, New York 1982, first published in des Jardins, ed. *Max Neuhaus, Sound Works, Volume 1,* 130. See http://www.max-neuhaus.info/bibliography/WilliamDuckworth.htm

Following the *Drive-In Music* model, Neuhaus's subsequent works would typically inhabit non-descript, everyday locations; there, they would typically go unannounced, transforming the everyday spaces they occupied through the process of their discovery. Neuhaus explains:

> The first [sound installation] works that I did were for a public at large; they were about taking myself out of the confined public of contemporary music and moving to a broader public. I had a deep belief that I could deal in a complex way with people in their everyday lives.
>
> I didn't want to make simple pieces for a simple people but something very special accessible to anyone who was ready to hear it. I didn't want to confront them with it—the opposite—to make something which they could find, to make the work in such a way that it leads to discovery, that they discover it rather than have it pushed upon them.[28]

Neuhaus's most widely-discovered work is *Times Square*, which is housed at Times Square in New York City. It was first exhibited between 1977 and 1992, and it has been permanently installed in a traffic island on Broadway (between 45th and 46th Streets) since 2002. Passers-by are generally unaware that they are experiencing a work of art, since there is no sign announcing that *Times Square* is there.

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[28] Max Neuhaus, *Elusive Sources and 'Like' Spaces* (Turin: Galleria Giorgio Persano, 1990), 58-59.

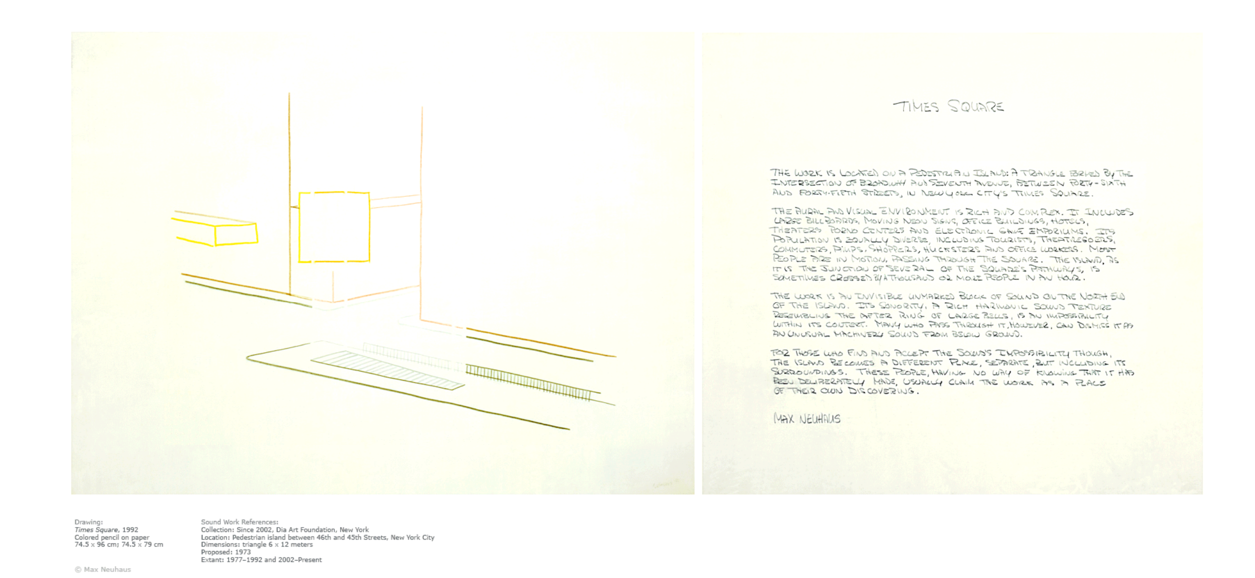


Figure 3.3: Max Neuhaus, *Times Square* (1977-92; 2002-present). Drawing by Max Neuhaus. The text reads:

> The work is located on a pedestrian island: A triangle forked by the intersection of Broadway and Seventh Avenues, between Forty-Sixth and Forty-Fifth Streets, in New York City's Times Square. The aural and visual environment is rich and complex. It includes large billboards, moving neon signs, office buildings, hotels, theaters, porno centers, and electronic game emporiums. Its population is equally diverse, including tourists, theatergoers, commuters, pimps, shoppers, hucksters and office workers. Most people are in motion, passing through the square. The island, as it is the junction of several of the square's pathways, is sometimes crossed by a thousand people or more in an hour. […]
>
> For those who find and accept the sound's impossibility though, the island becomes a different place, separate, but including its surroundings. These people, having no way of knowing that it has been deliberately made, usually claim the work as a place of their own discovering.[29]

[29] See Max Neuhaus, "Sound Works," http://www.max-neuhaus.info/soundworks/list/

In *Times Square*, synthesizers housed in a chamber beneath a subway grater produce a continuously changing, multi-frequency drone. This drone is present twenty-four hours a day, seven days a week. It emerges from, and disappears into, a soundscape composed of the products of everyday life: the sounds of traffic, advertising, and busy crowds. Neuhaus claims to have composed *Times Square* by studying the sounds of the location, and finding frequencies which he felt complemented the environment. He then designed a "synthesis circuit" that activated those frequencies; these were resonated through the subway chamber and its adjoining tunnels, and broadcast through a loudspeaker. The result is a complex, dynamic layering of tones whose pitch, timbre, and amplitude is constantly shifting, and therefore impossible to "place." The focal point of the drone shifts within the listener's field of perception, as incidental, environmental sounds work to alternately locate and dislocate the drone within an unstable and Byzantine aural scene.

By leaving the work unannounced, Neuhaus hopes that passers-by will "claim" it, and by extension claim the place in which it is situated. "Times Square" thus evolves through the unpredictable and uneven processes of its discovery, and the attendant attachment to

place that results from this discovery. I visited "Times Square" several times in 2004, frequently encountering accidental listeners who found themselves captivated by the sounds emanating from the subway grater. On one occasion, I went with a friend who was familiar with the work. He called it the "ür-tone of civilization," and commented that it was "growing darker" as the scene at Times Square became more and more commercial and alienating. The way that "Times Square" functions is strictly contingent upon its surroundings; its realization changes according to the moment-to-moment changes in scenery that define its particular "position." Subjective interpretations of, and personal attachments to, the work are part of its conceptual scope.

The acoustic field of *Times Square*, which is subtle, minimal, and restrained, delineates a separate and oppositional space to the larger soundscape in which it is situated: a soundscape defined by advertising, tourism, and traffic. If Times Square itself is a transit zone, designed to move consumers from one purchase to the next, *Times Square* the installation serves to ground passers-by. It literally places the listening body, implicating it within a network of continuously evolving sonic, social, and spatial relationships. One critic of the work observes that, "the ultimate effect is a heightened sense of placement, a feeling

that one grasps one's location with a greater degree of clarity than usual."[30]

Times Square is concerned with the individual use and perception of a public space as much as it is with any aesthetics. To describe the work primarily in terms of its sonic content would be misleading; instead, the sounds that differentiate *Times Square* from its surroundings are materials out of which questions about shared space might be addressed: Who defines the articulation and the use of a public space? How are public spaces navigated, and how is this navigation prescribed, conditioned, and differentiated along social and economic lines? How can dominant constructions of public spaces be revealed and resisted, and who has access to these sites of resistance? How are aural spaces produced, allocated, and controlled within the public sphere?

In framing these questions, *Times Square*—while invisible and incorporeal—simultaneously inhabits and rejects its own situation within a capitalist landscape, and the attendant colonization of daily life this

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[30] Carter Ratcliff, "Space, Time and Silence: Max Neuhaus's Sound Installations," in *Max Neuhaus's Sound Installations* (Basel: Kunsthalle Basel, 1983), 7.

landscape entails: a daily life fragmented, isolated, and mediated through the processes of production and consumption. In this sense, I consider *Times Square* an homage to the efforts mid-century artists and philosophers who, in positing alternative spatializations, were ultimately concerned with rescuing the sphere of private life from public affront

3.5 *Listen*: Contemporary Resonances

Neuhaus's work is considered to be foundational to sound installation art traditions, and its influence can be traced within many contemporary projects. There are many public sound installations that intervene in everyday spaces. For example, the Canadian sound artist Robin Minard's *68 Kilomètres de Musique* (1990) is an installation with microphones and MIDI instruments that Minard conceived for the public address system of the Montreal subway system; in it, Minard converts the noises of everyday life into controls for MIDI instruments.

Since the late 1980s, the American composer and installation artist Michael J. Schumacher has been creating *Room Pieces*, a series of modular sound installations that evolve through the addition and

refinement of site-specific sonic fragments and processes. In *Living Room Pieces*, Schumacher extends the idea of *Room Pieces* to the home environment, where it is meant to be heard twenty-four hours a day (it is installed in Schumacher's own home). Schumacher describes *Living Room Pieces* as functioning according to the ways in which sounds function in everyday life; according to Schumacher the installation mimics everyday sounds in terms of their proximity and distance, volume and length, and conspicuousness and ordinariness.

The contemporary Finnish artist Heidi Fast creates sound works in her audiences' everyday environments, and engages them in creating what she considers to be "temporal social sculptures." For some of her work, Fast travels to where her audiences live. There she invites them to take part in performance-based sound sculptures by making sounds with her while exploring their environment. Fast's 2006 *Lullaby Action*, for example, took place in Hesperia Park in Helsinki at 7 p.m. on 22 April 2006, and involved many of the residents who lived on either side of the park. Before the work was scheduled to take place, Fast had hand-delivered letters to about five hundred apartments that surrounded the park, inviting residents to take part in her sculpture. She tells me that:

> *Lullaby Action* was a vocal course through Hesperia Park. I asked people to come to the street and "sing" with me a straight and long tone, (or whatever kind of a voice that happen to come out of their mouth in that particular moment), or to answer me from their windows when they hear my voice passing by in the street. The walk took about twenty minutes. I consider it as a temporal social place, in movement.[31]



Figure 3.4: Heidi Fast, *Lullaby Action*, 2006. Photographer: Pekka Mäkinen. Courtesy of Heidi Fast.

In another work, *Apartment House Lullaby Action*, (2006) Fast invited residents of an apartment building in Kuopio, Finland, to walk

[31] Heidi Fast. Conversation with the author, 19 November 2007.

with her up and down the building's main set of stairs. She sang, and invited them to sing as well, while leading them through this everyday space. Fast says of *Apartment House Lullaby Action* that:

> I invited the inhabitants of that house… to answer me with their own voice, or to "sing" with me at the stairs, when hearing my voice passing by. I walked the stairs slowly up and back down and while walking letting a kind of a silent singing voice out of my mouth.[32]

With *Apartment House Lullaby Action*, Fast wanted to create a "temporary social community"— a community that lasted, in this case, for about half an hour.

Fast's audience-interactive performances can be considered social environmental sound works. Like Max Neuhaus's *LISTEN*, they articulate and transform everyday spaces through the act of listening; since Fast's works also involve audience participation, they also change audiences' relationships to their everyday environments and to one another through the act of making sound.

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[32] Heidi Fast. Conversation with the author, 19 November 2007.

3.6 Conclusion

The concept of sound installation art did not emerge in a vacuum. Instead, it grew out of an earlier history of 20th-century Western art and music that attempted to blur the boundaries between art and everyday life; this history included the efforts of the Futurists, Surrealists, Dadaists, Situationists, Fluxus, and artists and composers like Marcel Duchamp and John Cage. Between the late 1950s and late 1960s, concerns about the relationship between everyday life and social production came to a head, as exemplified in the philosophies of everyday life and social spatialization of Gaston Bachelard and Henri Lefebvre—philosophies which drew upon and influenced the efforts of these artists.

When Max Neuhaus introduced the idea of sound installation art in the late 1960s, it was as a sonic art that could intersect seamlessly with people's everyday activities, and change audiences' relationships to everyday spaces. As a percussionist, Neuhaus had performed the works of leading Western art music composers including Cage, but felt that their efforts could not change audiences' habits of listening. In

1967, Neuhaus began to take audiences on listening walks, instructing audiences to focus on the sounds of the everyday environment. The following year, he created *Drive-In Music*, a sound installation housed in a non-descript road in Buffalo, a driving city; audiences could hear *Drive-In Music* on their car radios as they drove by it.

Drive-In Music was dependent upon environmental factors; it had no discernible beginning or ending; and it could be happened upon by chance. Many of Neuhaus's subsequent works conformed to this same model. In Neuhaus's permanent installation *Times Square*, for example, synthesizers housed in a subway chamber emit a complex, layered drone that Neuhaus designed to reflect of the environment at Times Square in New York City. Neuhaus defined sound installation art in opposition to music. He maintained that, in sound installations, sounds are placed in space, while in music they are placed in time; and further distinguished sound installation from music by claiming that sound installations have no discernible beginning or ending.

Neuhaus's definition of sound installation art, and his concept of sound installation as an everyday art and a social art have been influential within subsequent traditions of sound installation. The sound

installation artist and composer Michael J. Schumacher, for example, has created sound works for installation inside audiences' homes, where they are meant to be heard continuously, for twenty-four hours a day. The idea of a continuous sound environment was perhaps first explored in the 20th-century by La Monte Young and Marian Zazeela, whose *Dream House* (1963-ongoing)—an environment made up of frequency structures—is still on display in lower Manhattan

The idea of sound installation art as an everyday art and a social art resonates loudly in the works of Heidi Fast, a contemporary Finnish artist. Her temporary sound sculptures reveal the social production of space, and articulate and transform audiences' everyday spaces through acts of listening and creating sound.

CHAPTER FOUR

CONCEPTUAL SPACES

4.1 Introduction: Disappearing Art

Between December 21,1979 and February 10, 1980, the San Francisco Museum of Modern Art hosted one of the first major exhibitions in the United States in which works with sound were prominently displayed—or, rather, in which works with sound were prominently documented. *Space/Time/Sound: Conceptual Art in the San Francisco Bay Area, the 1970s* was an unusually ambitious retrospective organized by Suzanne Foley, a maverick curator of conceptual art on the West Coast. With *Space/Time/Sound*, Foley aimed to contextualize a decade's worth of work by twenty-one Bay Area artists, tying together a number of practices under the common banner of conceptualism: site-specific sculpture, installation art, and events. This was a daunting task, considering that most of these works no longer existed by the time of the exhibit's unveiling.

In her introduction to the exhibit catalog, the Foley wrote that the San Francisco Museum of Modern Art, which had added "modern" to its name only in 1976, had "decided to include works of a temporal and ephemeral nature, [considering them to be] worthy of recognition."[1] Paradoxically, many of the works that had warranted this disclaimer had developed within sculpture traditions, which are not typically associated with temporality or ephemerality. However, these sculptures more closely resembled what would today be considered Performance Art.

Some sculptures were particularly ephemeral, consisting of actions so incidental or brief that they would hardly warrant being framed as works of art under most circumstances, much less as sculpture. The Bay Area artist Tom Marioni's 1969 "One Second Sculpture," for example, simply consisted of Marioni releasing a tightly-coiled piece of measuring tape into the air. The tape unfolded, making a loud sound as it fell to the ground in a straight line.

[1] Suzanne Foley, *Space, Time, Sound: Conceptual Art in the San Francisco Bay Area, the 1970s* (San Francisco: SF MOMA, 1981), 1.



Figure 4.1: Tom Marioni, "One Second Sculpture" (1969). Photo: Tom Marioni.[2]

Other temporal sculptures lasted much longer, actions turned into ritual through their continuous repetition or their extension in time. In his 1972 "Action for a Tower Room," Marioni's frequent collaborator Terry Fox played the tamboura, an Indian drone instrument, for six hours a day on three consecutive days, "filling the space of a small, square, stone room at the top of a tower reached by winding stairs with a continuous, circular sound."[3] Fox claimed that the "spatial sound" produced through his actions with the tamboura was used to influence the movement of a candle flame, and to create vibrations in still water.

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[2] See "Itinerary," *Sculpture* 23/2 (2004), http://www.sculpture.org/documents/scmag04/march04/itinerary/itinerary.shtml

[3] Terry Fox, program notes to "Action For a Tower Room," (self-published, 1972).



Figure 4.2: Terry Fox, "Action for a Tower Room" (1972). Photo: Terry Fox.[4]

[4] See Terry Fox, *Works with Sound/Arbeiten Mit Klang*, ed. Terry Fox (Berlin: Kehrer Verlag Heidelberg, 1998), 40.

In another work, "Suono Interno" (1979), Fox strung piano wires across the length of an abandoned church (the Chiesa Santa Lucia, in Bologna). He coated the piano wires with resin, and for six hours a day for three consecutive days, he performed actions with the wires, like stroking or plucking them. The sound art curator and critic Matthias Osterwold explains that, "[t]he penetrating, voluminous sound could be heard outside the church. The audience could see the installation and performance only through a small peep hole in the church door."[5] Audiences for "Suono Interno" and "Action for a Tower Room" were permitted to look inside the room, but they were not permitted to enter it, since their presence in the room would potentially disturb the "sculpture" that was forming there. Fox would explain of his relationship to audiences in works such as these that:

> I was making that space into a sculpture. I transformed the space, that was the point of the performance. The spectators were there because I wanted them to witness the actions that brought about the change in the space. To see it and then leave. I was interested in the idea of someone having a kind of memory knowledge about a

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[5] Mattias Osterwold, "Terry Fox: Economy of Means-Density of Meanings," in *Works with Sound/Arbeiten Mit Klang*, ed. Terry Fox (Berlin: Kehrer Verlag Heidelberg, 1998), 27.

space, having an environment transformed through their memories.[6]

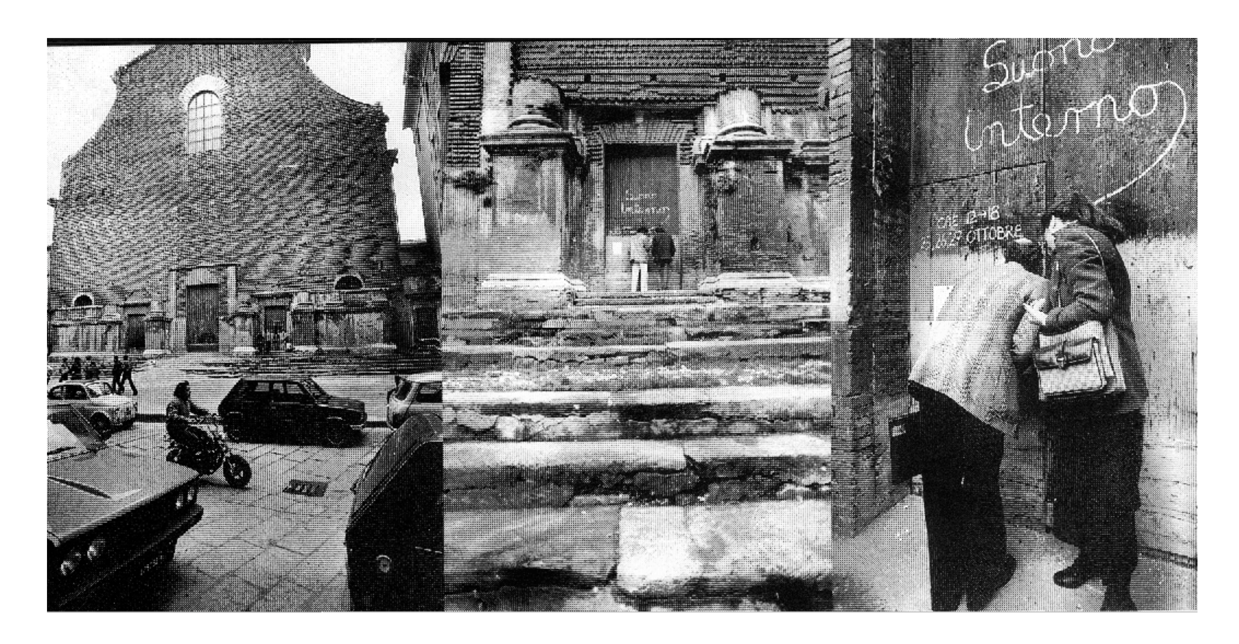


Figure 4.3: Terry Fox, "Suono Interno" (1979). Photographer: Gery Wolf.[7]

Fox explained that his works like "Action for a Tower Room" and "Suono Interno" that they were not music, and that he himself was not a musician, but instead "[an] amplifier of forces inherent in objects."[8] Osterwold suggests that Fox "sees sound and the objects or "instruments" that broadcast, reflect, and release it as primarily sculpture, not music. 'Sound is sculpture.'"[9]

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[6] Terry Fox, *Metaphorical Instruments* (Berlin: daadgalerie, 1982), 26.
[7] Terry Fox, *Ocular Language: 30 Years of Speaking and Writing About Art* (Köln: Der Kunstler, die Autoren und Salon Verlag, 2000), 148.
[8] Terry Fox, *(Re/De) Constructions&c* (Kassel: Vol. Kunsthale Fridericianum), 15.
[9] Osterwold, "Terry Fox: Economy of Means-Density of Meanings," 19.

When Suzanne Foley collected works like Marioni's "One Second Sculpture" and Fox's "Action for a Tower Room" to display in *Space/Time/Sound*, her role shifted from that of curator to that of archivist, since she could only exhibit these works through audiovisual documentation. Unsurprisingly, a common criticism leveled against the exhibit was that, while there was no shortage of materials on display, there was "no art there."



Leisure G-32 — Oakland Tribune Sunday, January 13, 1980

Kinds of art that vanish as they are being done

Review By Charles Shere
Tribune Staff Writer

SAN FRANCISCO—Ready for one more roundup of the '70s?

It was the decade of intangible art—process art, performance art, conceptual art: art that doesn't hang on a wall or stand in a corner; art which happens and then disappears.

Except for its documentation.

The San Francisco Museum's current show is an attempt at a summary of the phenomenon, but it is frustrated by a built-in problem: you walk through the galleries, reading the explanatory wall labels, looking at "documentary" material which is not the art but only a record of the evanescent art—and get hung up on labels and photographs as objects.

"Space/Time/Sound—1970s: A Decade in the Bay Area." San Francisco Museum of Modern Art, Van Ness at McAllister; Tue.-Fri. 10-6; weekends 10-5, Thursdays to 10 p.m., through Feb. 10.

Terry Fox strode toward patch of dirt from which he would attempt levitation in installation performance at Richmond Art Center in September, 1970.

concentrate on the spiritual meaning of art, and though the simultaneous development of Pop Art should have taught us to grant equal esthetic status to all man-made objects, old habits persist. When you see something in a museum you automatically respond to it as if it were meant to be "art," for better or worse.

Take Mel Henderson's "Yellow Cabs," for example. On Nov. 19, 1969, at 11 a.m., 100 people—were they artists?—took taxis to the corner of Market and Castro. The resulting confusion was a "kinetic

(The latter reached an extreme in Vito Acconci's notorious "Seedbed," performed in New York in the early '70s: the artist lay out of sight under a wooden ramp installed in the gallery, performing a usually private act. The gallery-goers knew what he was doing, but knew it only theoretically.)

Well, to what extent are these private meanings of interest to the art public? To be understood they have to be felt empathetically: just as an Ingres drawing means more to the viewer who actually draws a copy,

Figure 4.4: Newspaper clipping. Charles Shore, "Kinds of Art that Vanish as They Are Being Done," *Oakland Tribune*, 13 January 1980.

If, as Walter Benjamin had asserted in his influential 1936 essay, the aura of the unique art object had diminished during the age of

mechanical reproduction—thereby democratizing art as a field of production—what had happened to this aura during the age of conceptualism, when art works did not even necessarily take object form? The artist and philosopher Henry Flynt, who coined the term "concept art," wrote that:

> Concept Art is first of all an art of which the material is concepts, as the material of, e.g., music is sound. Since concepts are closely bound up with language, concept art is a kind of art of which the material is language.[10]

In the case of Marioni's and Fox's performance-sculptures, the art object had not quite fully de-materialized into concept, structure, or language, but instead existed in a liminal state between action and object, or process and form.

This chapter outlines a genealogy of mid-century conceptual sound art, highlighting works and practices that reside in liminal spaces, like the space between action and object, or the space between performance and sculpture. It begins by reevaluating the intermedia art practices of Fluxus artists in the late 1950s, in particular George

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[10] See Henry Flynt, "Essay: Concept Art," in *An Anthology of Chance Operations*, ed. George Brecht and La Monte Young (New York City: Heiner Friedrich, 1963).

Brecht's conception of the Event. The Event is typically theorized as a performance technique. I see it as much more: a device for framing metaphysics of chance—a metaphysics in which actions and objects are commingled within the common field of probability.

In positing the mutual constitution of actions and objects, the Event contributed to the emergence of multiple genres of sound art in the mid-century. As the sound art historian Douglas Kahn writes:

> George Brecht – [a visual artist] whose name came to be closely identified with the new performance [mode] known as…events, [is] not normally identified with sounds but [was] responsible for innovative approaches to it.[11]

In the current literature on Fluxus, the Event is often conflated with Action Music, a minimalist genre of Fluxus performance in which actions with objects are framed as musical forms. This chapter distinguishes between the two expressions. While the Event was principally concerned with acts of perception, Action Music maintained specifically musical concerns, positing a rear-garde sensibility in relation to the Western musical avant-garde. Introducing several Action Music

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[11] Douglas Kahn, *Noise, Water, Meat: A History of Sound in the Arts* (Cambridge: MIT Press, 1999), 243.

works, this chapter investigates the ways in which they challenged accepted norms in Western art music traditions, and traces the process of musical signification in them.

Finally, I argue that the Event and Action Music were important precursors to the performance-sculptures of the Bay Area conceptual artists, in which actions with sounding objects were performed with the intent to "transform space." Terry Fox and Tom Marioni, artists who were connected to Fluxus in ways that have yet to be acknowledged, gave this brand of sound sculpture a home in the Museum of Conceptual Art (MOCA) in San Francisco. The MOCA was a self-directed museum that hosted some of the earliest sound sculpture exhibits in the United States; its 1970 *Sound Sculpture As*, for example, was an evening of sound sculptures by nine Bay Area artists—sculptures that were fashioned out of actions with objects.

This genealogy of conceptual sound art thus connects networks of artists whose efforts remain unconnected in existing histories, and links what have traditionally been considered disparate practices: musical performance and sound sculpture.

4.2 Toward Events

George Brecht's early development of the "event score" furthers the Cagean precept that all sounds can function as music and extends it by proposing that everything that happens is music.

-Brandon LaBelle, *Background Noise*[12]

Although the alchemical concept is derived from Aristotle's téchne, and refers very generally to skill in both theoretical and practical matters, its similarity to the extended concepts of art in the modern age is unmistakable. It is not, as one might immediately assume, the illustrative and fantastic spheres of the traditional visual arts [...] but rather those areas that involve the aspect of process in the experience of reality, such as Conceptual Art and Fluxus.

-Alexander Roob, *Alchemy & Mysticism*[13]

In October 1959, the Reuben Gallery in New York City hosted *Toward Events*, an exhibit of works by George Brecht. Brecht was a professional chemist and artist who studied experimental composition with John Cage at the New School for Social Research between 1957

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12 Brandon LaBelle, *Background Noise: Perspectives on Sound Art* (New York: Continuum International, 2006), 60.
13 Alexander Roob, *Alchemy and Mysticism: The Hermetic Museum* (Köln: Taschen, 2005).

and 1959, along with other future Fluxus luminaries. On display in Brecht's exhibit *Toward Events* were, paradoxically, not events in the traditional sense of the word, but rather everyday objects accompanied by the instruction "to be performed." As the historian Ina Blom has pointed out, this performance was not specified along any known traditions—like theatrical or musical performance—but simply involved the arrangement and re-arrangement of objects.[14] Blom writes:

> The title [*Toward Events*] is of interest because of its apparent incongruity with the most obvious aspect of the show's contents: a number of found objects, standing alone or in constellations. The ambiguity may seem to be solved by the fact that the objects in question are to "be performed," but "performance' in this case is completely unspecific, and has nothing to do with notions of musical or theatrical performance.[15]

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[14] See Ina Blom, "Boredom and Oblivion," in *Fluxus Reader*, ed. Ken Friedman, 64-90 (New York City: Academy Editions, 1998).
[15] Blom, "Boredom and Oblivion," 68.



Figure 4.5: George Brecht, "The Case."[16]

One Event on display was a suitcase filled with common objects. Brecht indicated that it should be opened, and its contents removed and used in ways "appropriate to their nature." The Event, he wrote, "comprises all occurrences between approach and abandonment of the case." Is an Event like "The Case" therefore an action or an object, a performance or a sculpture, or something that resides in-between these categories?

[16] See George Brecht, *Book of the Tumbler on Fire* (Milano: Edizioni di Cultura Contemporanea, 1967).

MOTOR
VEHICLE
SUNDOWN
(EVENT)

(TO JOHN CAGE)
SPRING/SUMMER 1960
G. BRECHT

Any number of motor vehicles are arranged outdoors.

There are at least as many sets of instruction cards as vehicles.

All instruction card sets are shuffled collectively, and 22 cards are distributed to the single performer per vehicle.

At sundown (relatively dark, open area incident light 2 foot-candles or less) the performers leave a central location, simultaneously counting out (at an agreed-upon rate) a prearranged duration 1 1/2 times the maximum required for any performer to reach, and seat himself in, his vehicle. At the end of this count each performer starts the engine of his vehicle and subsequently acts according to the directions on his instruction cards, read consecutively as dealt. (An equivalent pause is to be substituted for an instruction referring to non-available equipment.) Having acted on all instructions, each performer turns off the engine of his vehicle and remains seated until all vehicles have ceased running.

A single value from each parenthetical series of values is to be chosen, by chance, for each card. Parenthetic numerals indicate duration in counts (at an agreed-upon rate). Special lights (8) means truck-body, safety, signal, warning lights, signs, displays, etc. Special equipment (22) means carousels, ladders, fire-hoses with truck-contained pumps and water supply, etc.

INSTRUCTION CARDS (44 per set):

1. Head lights (high beam, low beam) on (1-5), off.
2. Parking lights on (1-11), off.
3. Foot-brake lights on (1-3), off.
4. (Right, left) directional signals on (1-7), off.
5. Inside light on (1-5), off.
6. Glove-compartment light on. Open (or close) glove compartment (quickly, with moderate speed, slowly).
7. Spot-lamp on (1-11), move (vertically, horizontally, randomly), (quickly, with moderate speed, slowly), off.
8. Special lights on (1-9), off.
9. Sound horn (1-11).
10. Sound siren (1-15).
11. Sound bell(s) (1-7).
12. Accelerate motor (1-3).
13. Wind-shield wipers on (1-5), off.
14. Radio on, maximum volume, (1-7), off. Change tuning.
15. Strike hand on dashboard.
16. Strike a window with knuckles.
17. Fold a seat or seat-back (quickly, with moderate speed, slowly). Replace.
18. Open (or close) a window (quickly, with moderate speed, slowly).
19. Open (or close) a door (quickly, with moderate speed, slowly).
20. Open (or close) engine-hood, opening and closing vehicle door, if necessary.
21. Trunk light on. Open (or close) trunk lid (if a car), rear-panel (if a truck or station-wagon), or equivalent. Trunk light off.
22. Operate special equipment (1-15), off.

23-44. Pause (1-13).

Figure 4.6: George Brecht, *Motor Vehicle Sundown (Event)* (1960). Performance score.[17]

A year after *Toward Events*, Brecht produced his first Event Score, *Motor Vehicle Sundown*(*Event*), dedicated to John Cage. For this work, an unspecified number of performers were each given a set of cards that contained instructions for actions with parked cars. The performers shuffled these cards, thus randomizing the arrangement of the Event, but they were permitted to choose the duration of their actions.

[17] See George Brecht, "Motor Vehicle Sundown (Event)," in *Water Yam* (New York: Edition Fluxus, 1961).

The Event has thus come to be theorized as a "performance activity" or "performance technique," in which objects and actions are arranged according to a combination of chance and choice methods.[18] I understand George Brecht's conception of the Event as hinting at something much more: an alternate reality in which objects (or static forms) are reconfigured within a language of actions (or dynamic processes), the two united under the common umbrella of chance.

Brecht's later Event Scores, which typically took the form of lists, illustrate this process. His "Three Window Events," for example, reads:

opening a closed window
closing an open window

This score seems to indicate two events, which are actions, but actually points to three events. The third, implicit "window event" is the window itself. In Brecht's conception of it, the window is not a static form, but an infinite set of possible events, out of which several are

[18] See Hannah Higgins, *Fluxus Experience*, 2. See also Brandon LaBelle, *Background Noise: Perspectives on Sound Art* (New York: Continuum Books, 2006), 63.

chosen for "performance." The "window" is neither a thing nor an act, but a field of potential. Like the objects on display in Toward Events, the window is conceptually projected along a space-time continuum in which it may occupy any number of possible arrangements. At any given moment, "window" is a particular arrangement among this unlimited set of arrangements, in which possible states of being are determined by statistical probability, or chance.

Brecht would say that, "I don't feel very much one way or the other since every object is an event anyway and every event has object-like quality. So they're pretty much interchangeable."[19]

Thus conceiving of the Event as a liminal production between action and object, Brech was perhaps attempting a kind of alchemy: turning time into space, or energy into matter, and vice-versa. This model of the Event was hinted at in Brecht's 1958-59 notebooks "The Structure of a New Aesthetic," which discuss "space-time relativity" and "matter-energy equivalency."[20]

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[19] George Brecht, *Book of the Tumbler on Fire* (Milano: Edizioni di Cultura Contemporanea, 1967), 106.
[20] See Blom, "Boredom and Oblivion."

When asked what he meant by the term "Event", Brecht replied:

simply the meaning it has in the dictionary. [...] I don't take any credit for having [invented Event Scores]. Act of perception is in itself an arrangement, so there is no avoiding anyone making arrangements.[21]

In another example, the score for Brecht's 1961 "Three Aqueous Events" reads:

ice
water
steam

Here, water is both form and process, an object and a "happening" that occurs in multiple, incidental states. Water is framed as a process of transmutation: it is a music of changes.

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[21] See George Brecht, ed., *Cc V Tre* (New York: Fluxus, 1964).

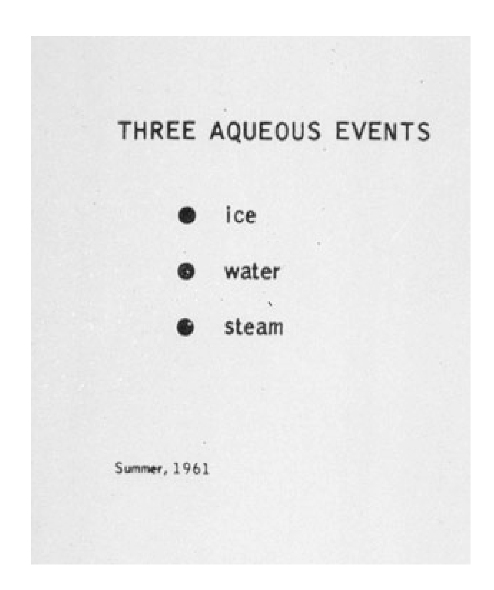


Figure 4.7: George Brecht, "Three Aqueous Events" (1961). Performance score.[22]

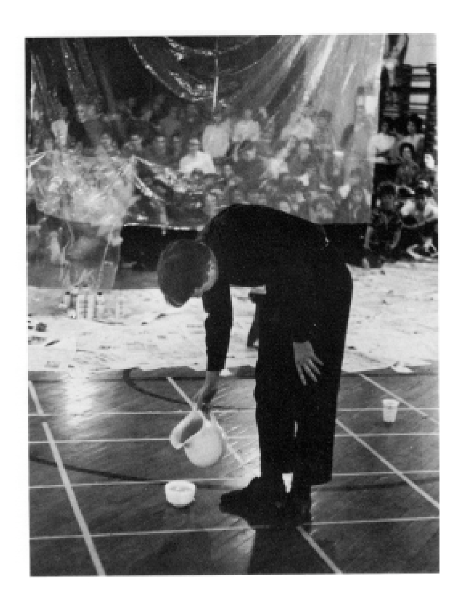


Figure 4.8: George Brecht performing "Three Aqueous Events."[23]

[22] See George Brecht, "Three Aqueous Events," in *Water Yam* (New York: Edition Fluxus, 1961).
[23] See Brecht, *Book of the Tumbler on Fire*.

4.3 Little Enlightenments

In 1957—before he was familiar with the work of John Cage—Brecht wrote a remarkable essay, "Chance-Imagery," in which he explored the underlying links between Action Art and chance methods. Brecht's genealogy of chance art included the "improvised" paintings of Wassily Kandinsky, the Automatic art practices of the Dadaists and Surrealists, and the "mechanical" chance processes of Marcel Duchamp. As early as 1913, Duchamp had experimented with chance methods, by randomly dropping pieces of string onto canvases, and then gluing these into place. The Dadaists and Surrealists poems and collages by randomly piecing together cut-up fragments of text and imagery.

Brecht attributed the presence of chance in art works to an apparent lack of consciousness in design, and suggested that actions—which he considered to be products of the *unconscious* mind—were one way of achieving this lack.[24] In terms of contemporary

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[24] According to Brecht, apart from Action, other ways of achieving chance include: (1) accessing the unconscious (as in the Surrealist method of Automatic Writing, where the hand freely forms linguistic utterances on paper, conceivably without any determined effort on

art, Brecht felt that the most important work being done in the area of chance were the Action Paintings of Jackson Pollock. In a later version of "Chance-Imagery" Brecht revised this statement, saying that it was in the music of John Cage.

Brecht was not only concerned with the technical or aesthetic possibilities offered by chance methods, but also with the spiritual and social implications. For Brecht, chance methods allowed the artist to access a universe of forms unimpeded by personality or culture, and thereby allowed the artist to transcend self.[25] This transcendence had aesthetic as well as spiritual implications. In terms of the latter, Brecht referred to the writings of D.T. Suzuki, the spiritual leader credited with having introduced Zen Buddhism to Western audiences in the 1950s. Suzuki had written that:

> There is something divine in being spontaneous and not being hampered by human conventions and their artificial hypocrisies. There is something direct and fresh in this lack of restraint by anything human, which suggests a divine freedom and creativity. Nature never deliberates; it acts

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the part of the author) and (2) using "mechanical" devices such as rolling dice or referring to random number tables in the construction of a work. See George Brecht, *Chance-Imagery* (New York: Something Else Press, 1966).

[25] Brecht, *Chance-Imagery*, 23.

> directly out of its own heart, whatever this may mean. In this respect Nature is divine. Its "irrationality" transcends human doubts, and in our submitting to it, or rather accepting it, we transcend ourselves.[26]

According to Suzuki, nature is divine because it does not think but merely *acts*; nature is therefore "free." Similarly, according to Buddhist doctrines, a self which achieves freedom from itself (which realizes the non-existence of self) is enlightened. For Brecht, the expanded consciousness that could perceive the totality of chanced Events, or the "unified whole" of the universe, was an enlightened consciousness: one that was able to perceive "space-time relativity" and "matter-energy equivalency."

Brecht's Event Score was therefore ultimately posited as a means towards enlightenment. Brecht himself would describe his later Event Scores as "becoming very private, like little enlightenments."[27]

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[26] Ibid., 12.
[27] See George Brecht, "The Origin of Events," in *Happening & Fluxus*, ed. H. Sohm and Harald Szeeman (Köln: Koelnischen Kunstverein, 1970).

4.4 From Event Score to Action Music

I tried to develop the ideas that I'd had during Cage's course and that's where my "events" come from. I wanted to make music that wouldn't only be for the ears. Music isn't just what you hear or what you listen to, but everything that happens.

-George Brecht, *Book of the Tumbler on Fire*[28]

The Fluxus historian Hannah Higgins has written that, "the most durable innovation to emerge from Cage's classroom [at the New School for Social Research] was George Brecht's Event Score, a performance technique that has been used extensively by virtually every Fluxus artist." In Fluxus, the meaning of the Event shifted, transformed from framing device into performance technique. As Fluxus performance, Event Scores did not typically point to the potential inherent within the incidental form, but instead emerged as minimalist compositions that rendered the singular action or happening within a language of musical performance.

"Action Music," as this performance is sometimes called, is an under-recognized relative of Action Painting, the abstract expressionist

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[28] Brecht, *Book of the Tumbler on Fire*, 83.

genre exemplified by the work of Jackson Pollock. Action Painting highlights the act or the happening of painting, suggesting that the art process and the art object are one and the same. A painting by Pollock is therefore received not only as a standalone object, but also as a record of the dripping, pouring, and other actions undertaken in its design. Similarly, Action Music highlights the action or happening of music, reframing actions as musical forms. According to Owen Smith, "Action music was an intermedial form that combined the action of drama and the sounds of music: these works were both music and theater and, at the same time, neither music nor theater."[29]

In La Monte Young's Action Music work "Composition 1960 #3," for example, Young instructs the audience to do anything that they wish within a given timeframe. The score for "Composition 1960 #3" reads:

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[29] Owen Smith, *Fluxus: The History of an Attitude* (San Diego: San Diego State University Press, 1998), 97.

Composition 1960 #3

Announce to the audience when the piece will begin and end if there is a limit on duration. It may be of any duration.

Then announce that everyone may do whatever he wishes for the duration of the composition.

5 · 14 · 60

Figure 4.9: La Monte Young, "Composition 1960 #3" (14 May 1960).[30]

Young claimed to have written *Compostions 1960* (an unnumbered, semi-published opus) as a response to the "very stifling academic environment" he encountered as a graduate student in music at UC Berkeley in the mid-1950s, and his subsequent introduction to the music of John Cage at Darmstadt in 1959.[31] With "Composition 1960 #3" Young makes a pointed reference to Cage's "4'33"," in which a performer structures three movements of musical silence, allowing the audience to hear any sound that occurs within that timeframe as music. However, unlike Cage's score, "Composition 1960 #3" does not structure sound or silence, but instead action. It extends Cage's idea that any sound can be considered musical to the idea that any *act*

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30 See La Monte Young, "Composition 1960 #3," in *An Anthology of Chance Operations*, ed. George Brecht and La Monte Young (New York City: Heiner Friedrich, 1963).
31 See Frank J. Oteri, "La Monte Young and Marian Zazeela at the Dream House," (October 1, 2003), http://www.newmusicbox.org/page.nmbx?id=54fp00

can be considered musical.

In the first half of the 20th century, the most critical definition of music within the Western musical avant-garde was that of music as "organized sound." In Action Music, music is not defined as organized sound but as organized action. In this radical new conception of music, thoughts and actions take precedence over the "sounds themselves" in transmitting musical meanings and structuring musical experiences.

4.5 Disappearing Music

> *In fact, Fluxus performances can be seen as resolutely musical in so far as they are often staged as musical performance and rely upon a musical language, instruments, and conventions, even if at times no direct musical reference can be found.*
>
> -Brandon LaBelle, *Background Noise*[32]

In order to trace this process of musical signification, I wish to refer to an Action Music composition that can be viewed on *Fluxfilm*

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[32] Brandon LaBelle, *Background Noise*, 60.

Anthology, a black-and-white—and *silent*—collection of Fluxus films.[33] These films are minimalist and mono-logical, typically following a linear arc around hyper-reduced narrative and formal structures.

One film, *Disappearing Music for Face* (1966)by Mieko Shiomi, shows a still close-up of the face of a smiling woman who, over the course of about ten minutes, gradually reduces her facial expression to neutral. The viewer, in sympathetic response, is systematically underwhelmed. The disappearing smile takes with it not only the felt, active energy that was supporting it, but also the personality of the performer, who has become blank in every way, changed through this action from voice into still life, pushed from the center-stage of the screen into a liminal space between static object and filmic backround.

In one version of it, Shiomi's performance score for "Disappearing Music for Face" reads:

smile_________________stop to smile

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[33] Various artists. *Fluxfilm Anthology*. New York: Arthouse, Inc., 1997.

I performed this composition with students in a class on Sound Art at UC San Diego in Summer 2006. Collectively, we stopped smiling over the course of a minute. Through this performance, we discovered that there are a multitude of traditional musical (or "pseudo-musical") choices that can be made with respect to "Disappearing Music for Face." For example, what should the "amplitude" of the smile be? At what rate should the performed "diminuendo" from smile to non-smile? What should the character or the "timber" of the smile be? Is the score meant to be interpreted literally, or can "smile" be conceived of as a larger category of expression that is produced and reduced in accordance with Shiomi's instructions? Is "Disappearing Music for Face" a Fluxian joke, or should it be taken at, er, face value?

Aside from these considerations, performers of "Disappearing Music for Face" confront an even more critical question: where does the *music* in this work lie? After all, "Disappearing Music for Face" is not *like* music, it *is* music. Like several of La Monte Young's *Compositions 1960*, it does not organize or transmit any sound at all. Young's "Composition 1960 #5," for example, instructs the performer to release a butterfly or any number of butterflies into a room; the performance ends when the butterfly or butterflies exit the room. The score reads:

> Turn a butterfly (or any number of butterflies) loose in the performance area.
>
> When the composition is over, be sure to allow the butterfly to fly away outside.
>
> The composition may be any length but if an unlimited amount of time is available, the doors and windows may be opened before the butterfly is turned loose and the composition may be considered finished when the butterfly flies away.

With this composition, Young asks audiences not to *listen* to music, but instead to bear witness to its unfolding. The place of music is thus changed from its well-worn residency within the field of sonic experience to a more general place within the larger realm of human experience. This music does not sound, or merely push the listener toward the edge of the aural perception, as a popular reading of the composition suggests. This music *happens*, and in its happening, suggests an expanded notion of musical experience that includes *any* kind of experience. These experiences may be physical, material experiences, and they may be conceptual ones. Their unfolding, like the unfolding smile in "Disappearing Music for Face," is the site of a musical experience in which the "music" is, ultimately, the *concept of*

what music is. In this music, the concept of "music" itself undergoes multiple disappearances.

4.6 Action Music as Fluxus Performance

As far as I am concerned, I think that
Fluxus is not a production of objects, of handicraft articles to be used as a decoration in the
waiting rooms of dentists and professionals,
Fluxus is not professionalism
Fluxus is not the production of works of art,
Fluxus is not naked women
[...]
Fluxus is not visual poetry for secretaries who are getting bored.

NO

Fluxus is the "event" according to George Brecht:
putting the flower vase on the piano.
Fluxus is the action of life/music: sending for a tango
expert in order to be able to dance on stage.
Fluxus is the creation of a relationship between life and art,
Fluxus is gag, pleasure and shock,
Fluxus is an attitude towards art, towards the non-art of anti-art,
towards the negation of one's ego,
Fluxus is the major part of the education as to John Cage,
Dadaism and Zen,
Fluxus is light and has a sense of humor.

-Ben Vautier, *Text on Fluxus*[34]

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[34] Ben Vautier, "Text on Fluxus," self-published (1997).

When Fluxus first emerged as a loosely-tied collective of artists and musicians in the early 1960s, it was a stylistically diverse forum. Proto-Fluxus concerts featured Cagean aleatoric music, improvised electronic music, *musique concrète*, Action Music, Event Scores, and serialist composition, among other genres. The 1961 concert series *Musica Antiqua et Nova*—which took place in the Fluxus impresario George Maciunas's A/G Gallery—included a "Festival of Electronic Music," a "New Sounds and Noises" series of experimental music and poetry, and "Evenings" that could take the shape of lectures, performances, or, in the case of an Evening by the artist Ray Johnson, "Nothing."

The first officially Fluxus-titled event was the *Fluxus Internationale Festspiele Neuster Music* in Wiesbaden, Germany between September 1 and September 23, 1962. An international festival of new music, it brought together several dozen composers from the United States, Western and Eastern Europe, and Japan. Their music ranged from serialist composition to improvised electronic music, reflecting a wide diversity of compositional styles that mirrored the fluidity and openness of early Fluxus. Early on in the festival, however, several

participants—notably Wolf Vostell, an influential German intermedia artist, and central Fluxus figures Nam June Paik and Dick Higgins—approached Maciunas, asking him to reduce the scope of Fluxus performance to focus on Action Music and Event works. Vostell explains:

> The entire list of composers [in Wiesbaden] was too broad. It could not possibly be a new aesthetics, and I remember mainly [Nam June] Paik, [Dick] Higgins, and myself [Wolf Vostell] influenced George [Maciunas] to give up the idea of a concert agency and to concentrate only on "Action Music" and "event"-type activities.[35]

Maciunas, who invested a majority of his income as a printmaker into launching Fluxus, and who personally financed its ventures for many years, saw this as an opportunity to effectively "brand" the Fluxus aesthetic. He began to require that performances presented under the Fluxus banner adhere to a narrow formula of Action Music: brief, minimalist, non-representational (non-symbolic) compositions that made use of prosaic objects and verbal scores, and embraced an anti-elitist aesthetic.

In his "Diagram of Historical Development of Fluxus," George

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[35] Michel Oren, "Anti-Art as the End of Cultural History," *Performing Arts Journal* 15/2 (1993): 8-9.

Maciunas lists “Action Music” as first appearing in the year 1952. In that year, John Cage presented “Theatre Piece No. 1,” an unscripted, chance-based, mixed media happening that placed the audience in center-stage. While the Happenings genre would be picked up and developed by Fluxus artists and associates, it was very different from Action Music and Event Scores. Happenings were large-scale multimedia events that collapsed artist/audience distinctions and made use of vast amounts of materials, forms, actors, and spaces. Conversely, Action Music and Event Scores would become noted for their multiple minimalisms. Action Music came to be conceived of within Fluxus as non-symbolic, non-representational action or doing, sometimes involving the production of sound, but not always. The adjectives that were most often used to describe Action in this context are “concrete” and “direct.” Action Music is characterized by its structural and material minimalisms, its open-ended forms (and even formal absence), its performer-and-audience directed interpretations, and its transmission through elemental, haiku-esque word scores describing sonic, performative, and conceptual tasks. Smith writes that:

> This first series of European Fluxus festivals ended in the summer of 1963. These festivals had started out as presentations of new music, action music, happenings,

> events, and recorded or tape music. As this series progressed, the types of works presented became much more tightly focused on event and action music.[36]

The formalization of the Event Score as Action Music in Fluxus changed the scope of this conceptually rich genre, often reducing it to neo-Dadaist one-liners and anti-art gags.

> "Rainbow No.1 for Orchestra" by Ay-O (date unknown)
> Soap bubbles are blown out of various wind instruments. The conductor breaks the bubbles with his baton.
>
> "Choice 1" by Robert Bozzi (1966)
> The performer enters the stage with a tied parcel, places it on a table, and opens it to take out a whipped cream cake with 10 candles. He lights the candles, then blows them out. He picks up the cake, shows it to the audience, then flings it into his own face.
>
> "Tactical Pieces for Orchestra" by Anthony Cox (date unknown)
> The orchestra is divided into teams, winds and strings… Wind in instruments must be prepared to shoot out peas… String instruments are strung with rubber bands which are used to shoot out paper V missiles… In this piece, the performers are required to hit a performer of opposite team with a missile…
>
> "Fruit Sonata" by Ken Friedman (1963)
> Play baseball with a fruit.
>
> "There's Music in My Shoes" by Davi Det Hompson (1972)
> Place a wet bar of soap in the middle of a room. Listen for someone to fall.[37]

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[36] Smith, *Fluxus: The History of an Attitude*, 126.
[37] These Action Music and Event scores appear with many other examples in Ken Friedman, ed., *Fluxus Performance Workbook* (Trondheim, Norway: G. Nordo, 1990).

The narrowing scope of Fluxus performance as Action Music would decide what could constitute a Fluxus work, and consequently determine who could claim membership in Fluxus. As Smith explains, "[a] number of composers and performers of new and electronic music, notably Karl Eric Welin and Michael von Biel, were at odds with the destructiveness and seeming non-musicality of some of the Action Music and event-type works. Although they performed many of the piano compositions in [Wiesbaden], they left after this and did not participate in any of the other concerts.[38]

The departure of more "serious" composers from the ranks of Fluxus may have been a welcome development for a group in the process of establishing itself as an outsider presence. However, the narrowing scope of Fluxus had other effects as well. In her article "Feminus Fluxus," for example, Kathy O'Dell examines the gendered divisions that formed around the definition of Fluxus performance as minimalist, non-symbolic expression. O'Dell writes that Yoko Ono, a central figure in the group, was often criticized for her performances like "Cut Piece," which sometimes featured her naked body; these were deemed "too

[38] Smith, *Fluxus: The History of an Attitude*, 8.

animalistic" by some Fluxus artists.[39] Charlotte Moorman, the leading avant-garde cellist of her generation who sometimes performed naked in her collaborations with Nam June Paik, was placed on a "Flux-blacklist" by Maciunas, who said he would not "cooperate with any exhibit, gallery, concert hall or individual that ever included her in any program or show, past and future."[40] The following conversation between the Fluxus artist Tomas Schmit and the theater historian Ginter Berghaus illustrates the tensions between Fluxus and Moorman:

> **Schmit**:… Charlotte—don't be angry with me—but taking off your clothes when it would have been better to keep them on—I mean, with all due respect to the intentions behind the Action, what did it actually achieve?
>
> **Berghaus**: It visualized her intention; that is, to perform music, a type of music that aimed at liberating the mind. Taking off one's clothes is a metaphor for putting aside a conventional cover behind which the essence of music is hidden. Playing the cello in the nude was a small step toward all-embracing liberation.
>
> **Schmit**: But isn't this a rather simplistic metaphor? I'm sure that's what she meant to say....[41]

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[39] Kathy O'Dell, "Fluxus Feminus," *TDR* 41/1 (1997): 53. See also Kristine Stiles, "Between Water and Stone," in *In the Spirit of Fluxus*, ed. Elizabeth Armstrong and Joan Rothfuss (Minneapolis: Walker Art Center, 1993).
[40] O'Dell, "Feminus Fluxus," 44. See also Harry Ruhé, *Fluxus, the Most Radical and Experimental Art Movement of the Sixties* (Amsterdam: "A," 1979).
[41] Gunter Berghaus, "Tomas Schmit: A Fluxus Farewell to Perfection: An Interview," *TDR* 38/1 (1994): 91.

In a similar vein, the Fluxus artist Shigeko Kubota claims that her peers in Fluxus "loathed" her Action performance "Vagina Painting" (1965), in which Kubota painted while crouched above a canvas, a paintbrush attached to her underwear. "Vagina Painting" targets the masculinist underpinnings of Action painting, in which the ecstatic gestures of heroic male actors move through various stages of ejaculatory *jouissance* in moving paint onto canvas. With "Vagina Painting" Kubota subverts this masculinist tradition by literally inserting it into—and rewriting it through—the female body.

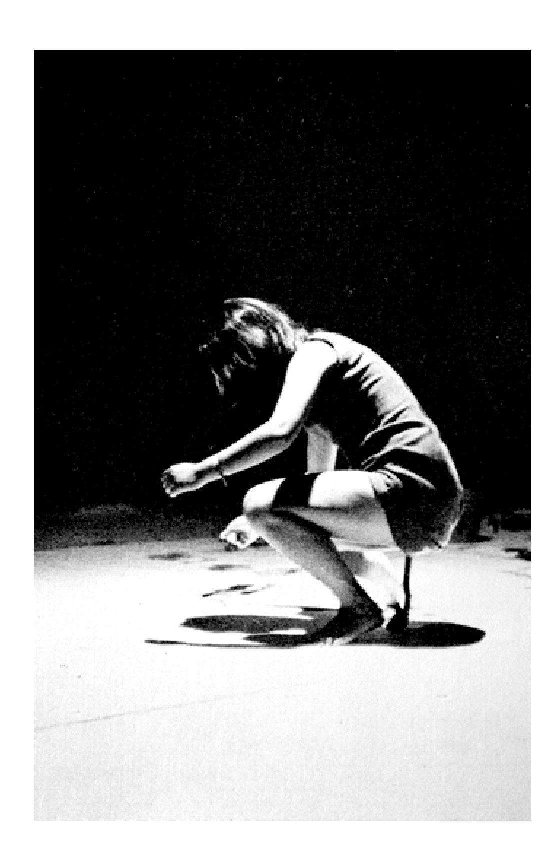


Figure 4.10: Shigeko Kubota performing "Vagina Painting" (4 July 1965). Photographer: George Maciunas.[42]

Perhaps most famously, Carolee Schneemann, whose work is considered foundational to Performance Art traditions in the United States, was one of the first artists to be dismissed from Fluxus by Maciunas. Her ecstatic, celebratory, orgiastic and feminist action performances—"Eye Body: 36 Transformative Actions" (1964) and "Meat Joy" (1965)—were thought to be overly expressive to be

[42] See "Photograph of Shigeko Kubota," http://www.artnotart.com/fluxus/skubota-vaginapainting.html.

deemed "Fluxus" works; when he dismissed her from Fluxus, Maciunas cited Schneemann's "Baroque tendencies, overt sexuality, and theatrical excess."[43]

As a genre, Action Music rejected symbolism, expressivity, and material in favor of minimal, non-representational doing. In this way, it can be seen as developing not only in opposition to Western art music traditions, but in opposition to constructions of femininity as well, which are historically associated with expressivity, abundance, and emotion. In Fluxus, Action performance was supposed to be a "meaningless" expression:

> Meaningless work is obviously the most important and significant art form today. Meaningless work is potentially the most abstract, concrete, individual, foolish, indeterminate, exactly determined, varied, important art-action-experience one can undertake today.[44]

Gendered and racialized bodies like Ono's, Moorman's, Kubota's and Schneemann's cannot perform "meaningless work" because their bodies themselves are read as signifying objects, variously interpreted

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[43] O'Dell, "Fluxus Feminus," 47.
[44] See Walter De Maria, "Meaningless Work," in *An Anthology of Chance Operations*, ed. George Brecht and La Monte Young (New York: Heiner Friedrich, 1963).

as animalistic, expressive, abundant, and symbolic.

In its Cagean form, Minimalism aims toward a "zero being," a disembodied state emptied of ego, desire, and conflict. The body—and more specifically the marked body (i.e. the gendered, sexualized, racialized body)—is the territory within which desire and ego are most immediately perceived, and consequently, the territory over which power is most violently negotiated. Fluxus interpreted Cage's "zero being" by defining Action performance as a "pure" expression emptied of meaning. As repositories of social, cultural, and historical meanings, however, marked bodies cannot merely act; they must necessarily speak. These bodies disturb the idealized Cagean space of silence in their very composition, reduced within an aesthetic hierarchy that privileges silence over sound to a collection of speaking parts.

4.7 From Action Music to Performance-Sculpture

> *All of my work is created during a performance involving my body as both initiator and terminator of sculptural processes. The various elements in the "piece" interact with each other and with me in a dialogue of mutual exchanges. I am an element in the sculptural exactly like*

> *the others. I use my body as a transformer of physical and psychic energy. [...] The act of creation is the performance and the performance space becomes sculpture.*
>
> -Terry Fox[45]

The reduction of the Event Score into Action Music both limited participation in Fluxus and determined what could constitute a "Fluxus" work. Likewise, it contributed to an historical understanding of Fluxus that excludes other kinds of expressions that grew out of the Event, but that are never considered in relation to Fluxus. While the footprint of Fluxus performance upon subsequent traditions of musical composition is beginning to be acknowledged, the influence of Fluxus upon subsequent traditions of sound sculpture is completely obscure. In the case of the 1970s Bay Area conceptual artists, there are many historical and aesthetic links to Fluxus which have yet to be teased out.

One notable historical link between the two groups lies in the figure of the German sculptor Joseph Beuys. Beuys participated in a proto-Fluxus concert, *Neo Dada in Der Musik*, in Düsseldorf in 1963. Subsequently, he moved away from more traditional forms of sculpture to ritualistic performance-sculptures which he called *Aktionen*. Many of

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[45] Terry Fox, "Rent-A-Artist (artist statement)," self published, undated.

these *Aktionen* developed as sound works. For example, in Beuys's "*JA JA JA JA JA NEE NEE NEE NEE NEE*," (1968), Beuys can be heard ritualistically repeating the words in the work's title continuously for an hour.[46] Over the course of the performance, Beuys audibly enters into an altered state of consciousness, his voice gradually modified from a regular speaking tone into a dreamy, guttoral drone, with members of the audience spontaneously joining-in with sporadic, chant-like responses.

Like John Cage in the United Staes, Beuys attracted an international group of students and artists to Düsseldorf. He was a fervent supporter of student rights, and co-founded the German Student Party, whose objectives included self-government, total disarmament, and "social-mystical" projects like convening a committee to investigate the afterlife. In 1968, the German Student Part was renamed Fluxus Zone West.

Among the artists who traveled to Düsseldorf to meet Beuys was the Bay Area artist Terry Fox. The historian David A. Ross writes that, "Fox

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[46] "*JA JA JA JA JA NEE NEE NEE NEE NEE*" can be heard at http://www.ubu.com/sound/beuys.html

had become aware of Beuys (then still relatively unknown in the U.S.) in the midsixties, through various Fluxus publications… Much of Beuys's work, like Fox's, had to do with energy transfer through the artist's ritual interaction with materials. Fox learned from Beuys that the residue of a ritual action could retain the aura of the event."[47]

Upon arriving Düsseldorf, Fox collaborated with Beuys in an impromptu performance-sculpture, "Isolation Unit" (1970). In this six-hour long work, Beuys and Fox used acoustic energy to "connect" found objects like a dead mouse, a candle, a passion fruit, and a piece of glass. The work took place in an empty coal storage room in the cellar of the Kunstakademie, where Beuys taught sculpture. As Fox tells it, in this work he and Beuys "worked simultaneously, although independently, but frequently came together, particularly in relation to sound."[48] Osterwold offers this description of "Isolation Unit":

> Beuys, clothed in a hat and felt suit, wandered around the room with a dead mouse in his hand. Later he spun the mouse on the spool of a tape recorder and used a silver spoon to eat a passion fruit, whose seeds he dropped with a bright, resounding tone into a silver bowl between his

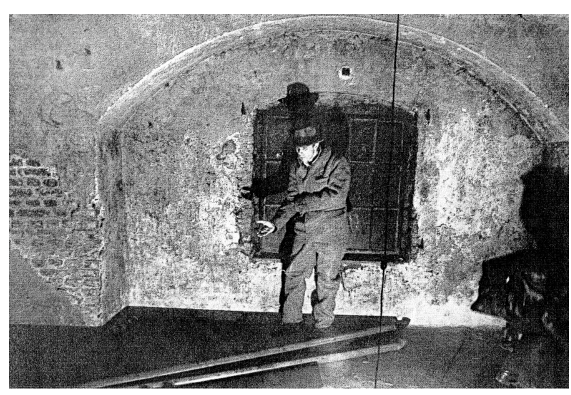
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[47] Terry Fox, *Articulations (Labyrinth/Text Works)* (Philadelphia: Moore College of Art, 199), 10.
[48] Fox, *Metaphorical Instruments*, 30.

feet. Along with an electric light bulb, a candle, and a cross formed from "canned heat," Fox had two metal pipes of different lengths, which he banged against the floor and against each other, producing bell-like, pulsing sounds. He also knocked the pipes against the four panes of a dismantled window unit, by observing the resulting resonances, he found acoustically dead spots in the glass. Then, one after the other, he smashed the panes. Now he could reach through the window, grasp the candle behind it, and place it in the middle of the room. He tried to influence an open candle flame with the sound waves from the pipes.[49]

[49] Terry Fox, *Works with Sound*, 20-21.





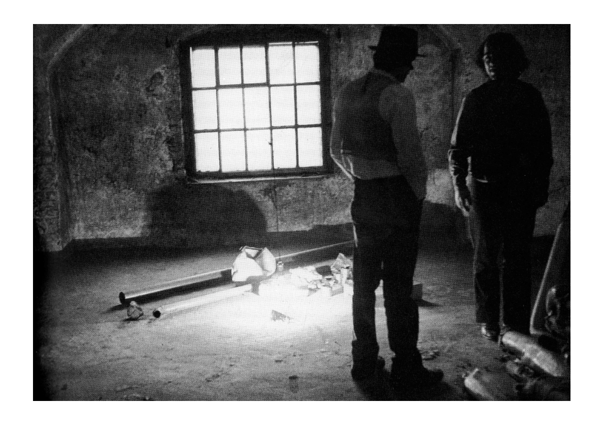


Figure 4.11: Terry Fox and Joseph Beuys, "Isolation Unit" (1970). Photographer: Ute Klophaus.[50]

Just as George Brecht believed that "every object is an event and every event has an object-like quality…(s)o they're pretty much

[50] Fox, *Works With Sound*, 31-33.

interchangeable," Beuys and Fox understood action and object to be mutually productive categories.[51] As Osterwold writes, "Fox understands his performances and actions as plastic works that, extended in the temporal dimension, sculpturally form a situation and charge a space with energy and emotion in such a way that the visitors perceive its qualities as changed, even after the performer has left."[52]

Performance therefore becomes sculptural in that actions are understood to be plastic forms. In this context, actions with sound are not considered musical but sculptural: tools with which to "connect objects" and "transform a space." Fox would therefore claim that, "sound is sculpture," and stress that his performances were geared towards discovering "the limitless sculptural possibilities of sound."[53] Osterwold explains that:

> Just as Fox understands performance and installation as concepts of plastic art…he also sees sound and the objects or "instruments" that broadcast, reflect, and release it as primarily sculpture, not music… When he uses sound and plays "instruments" in his performances and installation, he expressly sees himself, not as a musician, but as an actor sculpturally forming a space or a situation

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[51] Anna Dezeuse, "Brecht for Beginners," *Papers of Surrealism* 4 (2005): 4.
[52] Osterwold, "Terry Fox: Economy of Means-Density of Meanings," 17.
[53] Ibid.,18-19.

> using sound and other elements…. Fox usually relates sound to the given spatial conditions; he activates and vitalizes the space and thus changes the perception of its architecture; he makes it vibrate and turns it into a resonance body, into a co-player, even into an instrument.[54]

When Fox returned to the Bay Area, he imported this brand of acoustic performance-sculpture with him, most famously giving it a home in the Museum of Conceptual Art (MOCA), which was founded and curated by Tom Marioni in 1969. Marioni conceived of the MOCA as a large-scale social work of art that would provide like-minded artists with social situations. Although the MOCA is almost never mentioned in existing histories of sound art, the MOCA hosted some of the earliest sound sculptures exhibits in the United States—exhibits which clearly demonstrate a large debt to Fluxus. These included *Sound Sculpture As* (1970), *MOCA-FM* (1971), a radio exhibit of one-minute-long sound action works by twenty-five artists and *Notes and Scores for Sound* (January 9-January 30, 1972).[55]

In the MOCA's 1970 exhibit *Sound Sculpture As*, sculptures were

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[54] Ibid., 19.

[55] The MOCA hosted the *Notes and Scores for Sound* at the Mills College Art Gallery; it featured works by Fox, Marioni, Nam June Paik, Vito Acconci and Robert Ashely, among others.

fashioned out of actions with prosaic objects, and recalled the minimalist and irreverent aesthetic of Fluxus. For that exhibit, Fox showed his first acoustic work, "Sounds, Bowls, Shovel, Water." This was a "sound sculpture" in which Fox scratched a shovel across the floor and loudly dripped water into a bowl. Working under the pseudonym Allan Fish, Marioni showed "Piss Piece," a "sculpture" in which he drank several bottles of beer before urinating from the top of a ladder into a bathtub.

Sound Sculpture As also featured "sculptures" by other Bay Area artists including: Arlo Acton, who threw a steel ball through a pane of glass; Mel Henderson, who fired a gun at an image of a tiger; Peter Macan, who put bubble-wrap at the entrance of the museum for visitors to walk on; Jim McCready, who instructed four women to walk in nylon stockings; Jim Melchert, whose sculpture consisted of thirty unanswered telephone rings; Herb Yarmo, who rolled ball bearings down a steel pipe; and Paul Kos, who amplified the sound of ice melting.

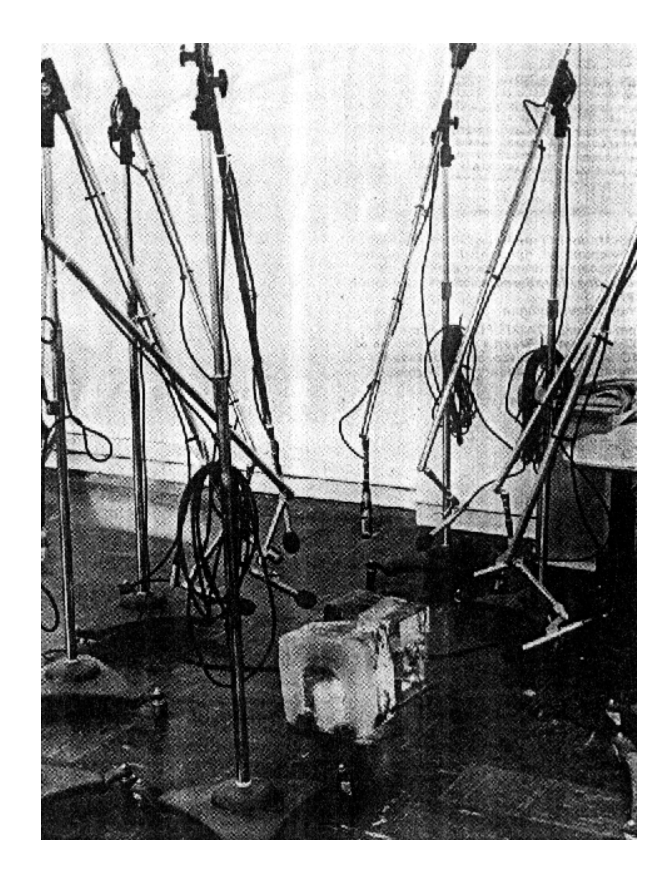


Figure 4.12: Paul Kos, "The Sound of Ice Melting" (1970), Museum of Conceptual Art. Photographer: Paul Kos. When Kos's sculpture was broadcast on radio, along with the other sculptures in *Sound Sculpture As*, it was indistinguishable from the conversations of the audience.[56]

4.8 Conclusion

In the late 1950s, the Fluxus artist and chemist George Brecht introduced the Event, a conceptual artform in which actions and objects are perceived as indistinct forms. The Event Score, a method for

[56] See Foley, *Space Time Sound*, 33.

framing such an act of perception, was formalized within and appropriated into Fluxus, where it was transformed into Action Music: a rear-garde music in which actions with objects were framed as musical works. While existing histories of Fluxus do not distinguish between Action Music and the Event Score, I see these as being fundamentally different expressions. While Action Music works were primarily concerned with constructing an oppositional musical aesthetics in relation to avant-garde Western art music practices, the Event was originally posited by George Brecht as a means toward enlightenment—as a way to connect with the "whole" of the universe.

The transformation of the Event within Fluxus—where it became meaningless, action-oriented performance—limited the scope of Fluxus, both by deciding who was allowed to participate within Fluxus, and by determining what works could be considered "Fluxus" works. This shift toward meaningless, action-oriented performance detracted from the conceptual richness of the Event, and created a forum that was much less fluid than that originally proposed by Fluxus. Specifically, it prevented more conventional composers from participating in Fluxus events, and it limited the participation of women artists, whose works were often considered too "meaningful" or "expressive" to be deemed

appropriate for Fluxus.

In the 1970s, Terry Fox, Tom Marioni, and other San Francisco Bay Area conceptual artists developed a genre of sound sculpture that grew out of performance traditions, and that demonstrated a large debt to the efforts of Fluxus artists a decade earlier. Through their connections to Fluxus associates such as Joseph Beuys, these artists introduced a kind of performance-sculpture in which actions with sound objects were intended to "transform space." However, the efforts of Fox and Marioni are rarely evoked in relation to those of Fluxus artists. The rigid disciplinary boundaries between performance and sculpture conspire to divide these histories even as the works themselves embrace and reveal the instability of these categories.

The Event inspired the fluidity of Fluxus—a forum poised to exploit the ontological volatility of the intermedium. But the chanced, incidental, and in-between byproducts of the Event remain hidden from view within histories that still adhere to traditional aesthetic and disciplinary boundaries. By pointing to alternative arrangements, intersections, and paradigms, histories can also inhabit other, liminal spaces, developing there as fluxed forms.

CHAPTER FIVE

EMBODIED SPACES

5.1 Introduction: Embodied Listening

> *Then the whole body will become an ear, and all sounds will come to you, the known and the unknown, the sweet, the sad, and the urgent.*
>
> -R. Murray Shafer, "I've Never Seen a Sound"[1]

> *It became clear to me rather quickly that I hear a sound that goes under me with the soles of my feet, that I hear with the skullcap, that—and this was really decisive—that the boundaries of sound spaces can also go through the body. [. . .] [Sound] is in it and the boundary can pass through the body. Space can extend into the body. This is one of the most interesting aspects of my work with acoustics, that entirely new concepts of space open up through extended hearing, through bodily hearing.*
>
> -Bernhard Leitner[2]

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[1] R. Murray Schafer, "I've Never Seen a Sound," in *Le son dans l'art contemporain Canadien*, ed. Nicole Gingras (Montreal: Édition Artextes, 2003), 71.
[2] Bernd Schulz, "The Whole Corporeality of Hearing: An Interview with Bernhard Leitner," in *Rezonanzen: Aspekte Der Klangkunst*, ed. Bernd Schulz (Heidelberg: Kehrer Verlag), 82.

The previous chapter introduced sound works that develop within conceptual spaces. In certain conceptual art traditions (like Fluxus performance), the space of the body is maligned as an expressive site; Fluxus performance favored the abstract and the meaningless over the embodied and the expressive. This chapter explores sound works that are, conversely, specifically intended to reside within—and consequently make audible—the very particular productions and expressions of the human body.

Since the 1970s, many sound artists have created sound installations that position the body as a resonant space—one in which aural architectures can develop. In these artists' body-based works, sound is not only heard by the ears, but instead produced at the intersection of bodies, sounds, and technologies. In the American artist Laurie Anderson's *Handphone Table* (1974), for example, sound is conducted through the listener's bones, transmitting a barely-audible recording directly into their bodies. With head in hands, and elbows acting as entry-points for sound, listeners simultaneously hear, feel, and embody a stirring line by a 17th-century love poet. Recorded by Anderson, this text is transmitted directly into listeners' bones via a sound recording: "Now I in you without a body move."



Figure 5.1: Laurie Andreson, *Handphone Table* (1978). Photo: Laurie Anderson. A pine table conceals a playback system of wires connected to nodes in which seated listeners place their elbows, receiving sound through them. Listeners become an embodiment of Anderson herself, who was similarly positioned "somewhere between concentration and depression" when she conceived of this work. The text is by seventeenth-century English metaphysical love poet George Herbert.[1]

Sound works designed to be installed *inside* the human body often bear a strong sense of ritual, conjoining material/physical spaces with their immaterial/metaphysical complements. An encounter with sound in these real and imagined spaces, as wrought in the body, can produce alternating fields of vibration: at times these beat positively to create an augmented awareness of self, spirit, and surrounding; at other times clashing to reveal the limits of the body—that it is socially determined and determining, that it is an instrument of control, that, ultimately, it fails the user.

[1] See Laurie Anderson, "The Handphone Table," http://www.textually.org/textually/archives/2007/03/015327.htm

Body-based sound works compel an "embodied listening": a mode of listening that accounts for physical and material experiences as well as metaphysical and immaterial ones, as these develop within and around the spaces of the body.

This chapter focuses on two body-based sound installations: the Austrian artist and architect Bernhard Leitner's *KOPFRAÜME/HEADSCAPES* (2003), and the American artist and composer Maryanne Amacher's *Sound Characters (Making the Third Ear)* (1999). Both works were designed, in part, for what Laurie Anderson regards as "the most intimate sound space": the head.[2] In Leitner's *HEADSCAPES*, the listener has the impression that she is hearing sound sculptures form inside the space of her own head, as though that space was an empty geometrical volume. With this work, Leitner proposes "contemplating the interior, however unfathomable it may be."[3] In Amacher's *Sound Characters* there is a track that—when played back at a loud volume inside a room—triggers "oto-acoustic

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[2] Laurie Anderson, *The Record of the Time: Sound in the Work of Laurie Anderson* (Milan: Manzzotta, 2003), 113.
[3] Bernhard Leitner, liner notes to *KÖPFRAUME/HEADSCAPES*, Edition ZKM (CD), 2003.

emissions." These give the impression that the ears themselves are producing sounds.

A situated or embodied listening can be undertaken with respect to any sound or music, since the development and perception of sound is always contingent upon its surroundings. I use *HEADSCAPES* and *Sound Characters (Making the Third Ear)* as examples primarily because they highlight sonic-spatial relationships, and because they are specifically intended to be listened to in situated and body-based contexts. My particular approach towards listening-as-performance resonates with Amacher's stated desire to "create a kind of music where the listener actually has vivid experiences of contributing to [the] sonic dimension."[4] It also fits with Leitner's idea of understanding the body as an "autonomous acoustic instrument, as an integral acoustic sensorium."[5]

Composing for the body raises a number of critical issues. Transferring the listening point from the ears to the tissues of the

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[4] Frank J. Oteri, "Extremities: Maryanne Amacher in Conversation with Frank J. Oteri," *New Music Box* (May 1, 2004), http://newmusicbox.org/page.nmbx?id=61fp00
[5] "Bernhard Leitner Interviewed by Wolfgang Pehnt" (1984), http://bernhardleitner.at/en/texts/pehnt4.html

body—a tangle of information, memories, and physical and psychic relationships—requires new models of aural reception and analysis. How does the body get mapped out as a score or sound stage? How do these mappings privilege certain bodies and kinds of relationships between bodies and spaces? How does a situated, embodied listening inform and disrupt traditional models of hearing and describing sound?

My reception of body-based sound works draws upon Donna Haraway's notion of an "embodied objectivity," which Haraway introduced as a way to re-focus the relationship of the (female) body to scientific methods, historically positioned as the neutral and objective work of (male) actors.[6] Haraway's vision of an embodied objectivity, while aimed at dislodging the tropes of scientism, resonates loudly within the humanities. It does this by challenging the normalized, neutral, disembodied—and implicitly objective—stance traditionally taken by historians and critics towards their subjects. When the listening and viewing body is deleted from the written text, readers are left with the pale impression of the "impartial" mind. By accounting for the body in the reception and analysis of a work, authors (including myself, here)

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[6] See Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (New York: Routledge, 1991).

cannot avoid or avert self-representation. An embodied reception reveals the body's biases, tendencies and aims—in other words, its history.

Feminist critique has challenged such conceptual dichotomies as the spirit/body and mind/body binaries, historically used to imagine the body of the female and the Other as polluted and subordinate to the "virgin" territories of the unfettered mind/spirit.[7] Through this critical intervention, feminist theory has re-positioned the body as a site of knowledge and even a site of history. "If the personal is political," writes Joan Nestle, embellishing on a popular feminist slogan of the 1970s, "then the very personal is historical."[8] In reviving the corporeal with respect to the experience of sound, listeners cross the boundary from the impartial to the very personal, reclaiming this marginalized space as a space of significance.

5.2 HEADSCAPES

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[7] See N. Katherine Hayles, "Virtual Bodies and Flickering Signifiers," *October* 66 (1993): 69-91. See also Richard Dyer, *White* (London: Routledge, 1997).
[8] Joan Nestle, *A Restricted Country* (Ithaca: Firebrand Books, 1987), 10.

Born in Austria in 1938, the Austrian architect and sound installation artist Bernhard Leitner began his investigations into what he calls "body-space" and "sound-space" relationships in the late 1960s. His early installations were forays into "acoustic-haptic" spaces. These works were characterized by the movements of sounds and listeners within architectural settings. Leitner explains:

> In October 1968, I laid down the base for my Sound-Space work: Sound itself was to be understood as building material, as architectural, sculptural, form-producing material—like stone, plaster, wood. The invention of spaces with sound, formerly inconceivable as a readily available material, was the central artistic motive. Sound and its movement define space. A new type of acoustic-haptic space.[9]

Leitner's works initially develop as scientific experiments. He performs empirical research by measuring his own perception of "sonic objects"—moving sound points, sound lines, and sound spaces; he tests their speed, their directionality, the angle of their projection, and so on, against the boundaries of his listening body.

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[9] Bernhard Leitner, "Investigations 1971-1976," http://bernhardleitner.at/en/73unters1_2.html

Among Leitner's earliest projects is *Sound Tube* (1971), an installation in which a listener walks through an elaborate, immersive speaker construction.

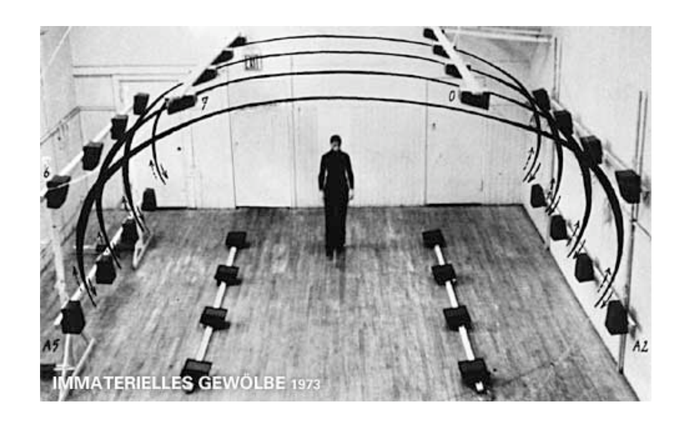


Figure 5.2 Bernhard Leitner, *Sound Tube* (1973).[10]

Another early work is Leitner's *Sound Chair* (1976), in which a listener lies down on a mobile chair fashioned with speakers, becoming the literal connective tissue between architectural and aural designs. The sound art historian Helga de la Motte-Haber writes of *Sound Chair* that:

> The movements of the sounds can run across the entire body from head to toe, whether standing up or lying down. While resting on the Sound Chair, one feels a deep sound moving back and forth from feet to head: the kinaesthetic-haptic experience dominates the experience of hearing, although the former is caused by the latter. Space becomes intimate space, even when the Sound

[10] See Bernhard Leitner, "Investigations 1971-1976, Sound Tube 1973," http://bernhardleitner.at/en/73unters1_2.html.

> Chair is placed in a large hall. This is because space seems to be a movement that emanates from your own body, or flows through it."[11]



Figure 5.3: Bernhard Leitner, *Sound Chair* (1983). Photo by Bernhard Leitner.[12]

Echoing de la Motte-Haber's thought that Leitner's installations compel the body to produce space or become a vessel for space, the art historian Cathrin Pichler comments on Leitner's works that:

> Sound spaces are not just spaces in which sound can be heard. Rather, it is sound itself that creates the space and its special qualities. Therefore the experience of hearing not only enables us to experience the space around us, [it] can also make it possible to experience physical space as an "inner" space. Bernhard Leitner's work leads us to a quality of sound (as space) that remains concealed within

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[11] Helga de la Motte-Haber, "Sound-Spaces-Fields-Objects" in *Ton, Raum = Sound, Space*, ed. Bernhard Leitner (New York: New York University Press, 1998). Reprinted at http://www.bernhardleitner.at/en/texts/delamotte1.html

[12] See Bernhard Leitner, "Sound Chair 1983 Version," http://bernhardleitner.at/en/76tonliege_2.html

> stimulus streams. It shows the potentials of sensual experience that we are barely conscious of because they are either lost or have remained unknown as possibilities.[13]

Among Leitner's installations that direct the listener toward an "inner" space, one of the most compelling is, perhaps improbably, an installation that Leitner conceived as a CD recording. In *KÖPFRAUME/HEADSCAPES* (2003) Leitner reduces the sound-space to the interior space of the human head. He imagines this space as a "globe-like container" in which sounds can move from point to point, eke out solid and staggered lines, and stretch over time from surface to surface.[14]

KOPFRAÜME (HEADSCAPES) is intended to be heard only on headphones. Leitner indicates that it "should be listened to at moderate volume," and specifies a lower volume for certain tracks (7 and 13) and a higher one for others (4, 8, 9, 15).[15] In total, there are sixteen tracks on *HEADSCAPES*. According to Leitner, each presents a "three-dimensional sculptural work exhibited on audio CD."[16] He writes,

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[13] Carolin Pichler, "Sound Spaces," http://www.bernhardleitner.at/en/
[14] Bernhard Leitner, liner notes to *KÖPFRAUME/HEADSCAPES*, Edition ZKM (CD), 2003.
[15] Ibid.
[16] Ibid.

"*HEADSCAPES* do not represent exterior space, but were conceived and created specifically for the interior of the head."[17]

Donning the requisite headphones, the listener can take these sculptures (they have names like "LF_C38" and "VAR_10B") anywhere the head can go. I listened to *HEADSCAPES* in multiple settings: a restaurant, a gym, my home, and on the road. Using an iPOD, I wore studio headphones that blocked out almost all external sounds, so that even the busiest locations could serve as a backdrop to the installations.

The first sounds on Leitner's CD are a rhythmic knocking that maps out the space of the head, tapping along the curved axes of its spherical surfaces. The noise floor is in constant flux, and sounds that the head naturally makes on its own appear to be included in the constructed soundscape (like the barely audible sound we make when we swallow our own spit). These sounds contribute to a sensibility of "real fiction" in this work. Its fictiveness is highlighted when discernibly synthetic, electronic sounds sweep in fragmented gestures across the headspace ("VAR_10B"), while its realness emerges in tracks like

[17] Ibid.

"HT+10PM," where subtle foot-dragging noises are measured in space against a distant ambulance alarm.

It is difficult to relate to the uninitiated listener how unsettling it can be to perceive one's own head as an architectural space that has particular and definite dimensions, reflective qualities, and resonant properties. *HEADSCAPES* makes audible the private chambers of the head, previously reserved for the too-familiar sounds of the inner voice. Remarkably, it uses short fragments of sound to challenge the body's habits of perceiving itself, its tendencies to imagine itself in static and pre-conceived ways. Hearing my own head as a finite domain—a map-able space where sounds can emerge and disappear—forced me to reckon with the possibility that my body may, in actually, really be finite: limited, a space like other spaces, with things moving in and out of it, living and dying in it, extending or limiting its lifespan.

Apart from this reckoning, the most difficult part of encountering *HEADSCAPES* in my experience was simply *remembering* to listen. As the sound space merged with the interior space of my head, I would forget that I was listening to a sculpture, and not merely hearing the sounds of my own subconscious, amplified by the sparse yet complex sequences

of sound. Listening became a study in concentration; and, the listening experience changed my perception of my own body. After hearing these sculptures, I could not help but imagine my head as the globe-like container Leitner revealed it to be, and not the tangle of tissue and activity it once was.

5.3 Listening Technologies and Rituals of Listening

Installation works of any media are generally thought to inhabit large spaces like entire gallery floors or outdoor locations; however, the term "installation" simply indicates that a work is intended to be experienced in relation to space, whether this happens to be a particular space or not (i.e. a site-specific installation), and whether this space is large or not. Audio recordings are almost always created outside of the installation genre. Most audio recordings, and in particular recordings that are created for compact disc, are portable and typically experienced in multiple, myriad spaces; typically, not much thought is given to the way in which the listening environment and the technologies of listening affect what is being heard.

The conceptual and technical difficulties in designing sound installations for the particular—and the wildly varying—spaces of the human body, then, are coupled with the challenge of changing audiences' listening habits. With body-based sound installations, audiences must feel sound as much as listen to it in the traditional sense. An embodied listening, what the sound artist and researcher Andra McCartney has called "full-bodied hearing," puts the entire body on equal ground with the ears.[18] With body-based sound works, listeners must turn their sonic gaze inwards, and in the process re-imagine their bodies as sites within which sounds can resonate, rather than position their bodies as neutral, unengaged receivers. With body-based sound works that are distributed on CD, audiences must additionally alter their relationship to a technological artifact that is pervasive and that inspires well-worn habits of listening.

Problematizing the relationship between the listener and the technologies of listening is the first step in what becomes a ritualistic mode of listening with body-based sound installations. Like Bernhard Leitner's *HEADSCAPES*, Maryanne Amacher's *Sound Characters:*

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[18] Andra McCartney, "Soundscape Works, Listening and the Touch of Sound," in *Aural Cultures*, ed. Jim Drobnick (Toronto: YYZ Books, 2004), 179.

Making the Third Ear comes with instructions. Amacher's CD is explicitly indicated for listening over loudspeakers: tracks 1, 4, 5, and 6 on the CD contain what Amacher calls a "third-ear music," a music in which "ears act as instruments and emit sounds as well as receive them."[19] Amacher describes the ways in which these "oto-acoustic emissions" function. She writes:

> When played at the right sound level, which is quite high and exciting, the tones in this music will cause your ears to act as neurophonic instruments that will seem to be issuing directly from your head. In concert my audiences discover music streaming out from their head, popping out of their ears, growing inside of them and growing out of them, meeting and converging with the tones in the room. [. . .] Tones dance in the immediate space of their body, around them like a sonic wrap, cascade inside ears, and out to space in front of their eyes, mixing and converging with the sound in the room.[20]

These third-ear music tracks cannot be heard using headphones, since, according to Amacher, headphones "preclude physical interactions with the space."[21] They must be listened to only using loudspeakers inside a physical, space-based arrangement of speakers set at a high volume. Like Leitner, Amacher describes her compositional

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[19] Maryanne Amacher, liner notes to *Sound Characters: Making the Third Ear*, Tzadik TZ 7043, 1999.
[20] Ibid.
[21] Ibid.

process in scientific terms. She claims that it is rooted in experimental, observational approaches toward organizing sounds in relation to "perceptual geographies" that connect bodies and physical spaces.

In an interview with composer-scholar Frank J. Oteri, Amacher is asked how she feels about describing her work as music, how it fits in with the history of music, and how it points to the music of the future.[22] She replies:

> I was very fortunate in that the first electronic music I heard was in Cologne on multiple speakers. Being a fan of Varèse, I immediately connected to imagining the spatialization of sound.
>
> […]
>
> From the very beginning, I wanted to do experiential work. I was working with electronic means, therefore I could sit and observe various things. I could try to understand more about what was happening to my ears, to my body, all over.
>
> I think I do music because I'm trying to understand. The ear-tones that I played for you are referred to as otoacoustic emissions. I heard those very early on when I was beginning to work, so I wanted to create a kind of music where the listener actually has vivid experiences of contributing this other sonic dimension to the music that their ears are making. I've become very involved with situations like that. My approach is more like in science,

[22] Oteri, "Extremities."

> although music is emotional and everything else. I sit and listen and I hear things, then I discover how I can expand them or increase them and try to understand them. I think of them as perceptual geographies actually.[23]

Several tracks on the *Sound Characters* CD are excerpts from Amacher's *Music for Sound-Joined Rooms* series of installations, which she began to produce in 1980. These are large-scale, multi-channel, multi-room works that combine music with architecturally staged visual sets. Aural and visual cues give clues to stories that listeners discover by moving around connected rooms in which what Amacher calls "structure-borne" sounds—sounds that develop primarily in relation to architectural spaces—are privileged over "airborne" sounds. The CD versions of Amacher's installations are two-channel, remastered excerpts of music originally intended to be heard in specific locations and specific architectural spaces. By consuming this music on CD, the listener undertakes a conscious transference of spaces, choosing new settings for previously site-specific sounds, and thus profoundly alters the way in which the works themselves develop and are received. Oteri writes about this kind of spatial transposition that:

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[23] Ibid.

> As someone whose entry point into the vast world of musical repertoire has mostly been by collecting records and since the most unusual and unique things are usually the hardest ones to hear live, Maryanne Amacher has always been something of an enigma to me.
>
> A composer of vast, space-specific sonic panoramas at crushingly loud volumes, Amacher defies containment and commodification. When Tzadik finally released a CD of her music, I finally thought I was able to experience it. But actually, I hadn't. Two speakers can't really convey what she is doing in space and as an apartment dweller the kinds of volumes she demands would inevitably lead to an eviction.[24]

5.4 Alien Acts: *Making the Third Ear*

On a weekday afternoon in October, I drive to the edge of the Pacific Ocean in San Diego, and park in a beachside parking lot facing the ocean. The beach is a busy one in an upper-class town. Military planes perform unintelligible exercises over two dozen or so surfers, who are also wearing uniforms, and who also obey (for me) an unintelligible set of codes. Both of these groups and their codes of behavior determine the "spatialization" of social forms in this place, and contribute to the production of space: what Henri Lefebvre considered to be a product of the body, social action, and spatialization.

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[24] Ibid., upaginated.

I have with me a copy of Maryanne Amacher's CD *Sound Characters: Making The Third Ear*, and my car has a 6.1 surround sound speaker system, so I feel well equipped to listen to Amacher's "spatial" music. I begin playing the first track on Amacher's CD, which is titled "Head Rhythm 1," keeping the windows shut and setting the volume at an extremely high level, as indicated in Amacher's instructions in the liner notes. Piercing synthesized pitches sound in and out of my head with a dislocating alacrity, a rapid sequence set in a permanent loop. Despite the many repetitions of this fast motif, the sequence is impossible to hear as a linear chronology of tones, because of the distribution of the pitches within the physical space, and because of the coupling of that space with the space of my body. My body has little room to move or to interpret these sounds, stunned by their sheer power and pulse.

The first track is divided into two parts. The second half is called "Plaything 1," and it is composed of massive planes of sound that are continuously peeled back to reveal others, jump-cutting between multiple evocative, almost-filmic sound scenes. Dense, synthesized swells sound simultaneously at different speeds, frequencies, and

dynamic levels, testing the body's limits of hearing both in terms of range and in terms of complexity. In the quieter moments of this track, I notice a sympathetic response in my body, which breathes in sync with the swells of sound. The sound space is not the typical two-dimensional, left/right stereo field I encounter in my car. It is four-dimensional, with the added dimensions of depth and motion in space. Sounds move up and down, from left to right, and in vertical, horizontal, and diagonal trajectories, towards the front and the back of the car, in dynamic waves whose motion sets my physical and imaginary body traveling along their path.

"Head Rhythm 1" and "Plaything 1" are distinctly machinic in terms of their sonic materials, and they inspire a Haraway-esque, cyborg sensibility in the listener. My physical surroundings suddenly seem old, anachronistic in relation to the space of these sounds; the sound space has become the dominant space in a complex matrix of spaces, forcing the environment around it to relate to *it*. I become acutely self-conscious when I see that the young couples parked in the car next to me have noticed that I am parked by myself, with alien-music blasting out of my shuttered car. A tense, tangible gulf develops

between us, as the different spaces we bring to bear in this scene intersect and challenge one another.

When the third track comes on, I block out my social and physical surroundings, and immediately feel the points of connection between my body and the body of the car. Both are shaking, reduced to a series of vibrations. I move to the back of the car and lie down. Again, I become self-conscious, feeling like I have assumed the position of a kidnap victim. I realize that the way my body is physically positioned informs and instructs my sense of self, giving me clues as to who I am and how I (should) feel.

In this track, "VM3 from the 'Levi-Montalcini Variations,'"—an excerpt from Amacher's 1992 installation *Synaptic Island*—nearly-tonal chords shade an undercurrent of non-pitched swells, which breathe and beat in a long progression of waves. Situated within this abundant sound field, all the parts of my body become antennas; they are turned on and receiving sound, and in the process, they are changing my psychic image of myself. Just as Risset tones give the impression of an infinite glissando, this twenty-minute long track contains what seems to be an infinitely long fade-out. As one body of sound disappears,

another imperceptibly enters, takes over, and begins to fade as well, creating an aural image of an eternal disappearance. In a moment of synesthetic coincidence, the ships at the horizon of the ocean—a physical place whose location is relative to the dimensions of the dimensions of the human body—appear to be suspended in a permanent state of disappearing.

I leave this scene with the feeling that my listening ritual was somehow a violent act, setting aggressively loud and strange sounds upon a scene where privileged people go to commune with the nature they had otherwise forgotten about in their oversized SUVs. Set to Amacher's soundtrack, a typically macho surfing and social scene had become the stage for a psychodrama featuring alien-callers, kidnapping victims, eternally sinking ships and killer-bee helicopters that guarded sun-streaked objects of American desire. As the listener, this transformation of space indicated Amacher's status as a foreigner—an outsider, a social intruder who invades and challenges rigidly-settled physical and psychic territories. By bringing Amacher's music to this place, with its particular complex of social and physical dimensions and codes that determine the relationships between bodies within these dimensions, I disrupted it and produced an altogether new place. In a

practical sense, this is the power that exists in cultivating an awareness of one's own body in relation to an environment. Setting the body to receive sound, what one installation artist has called "the interface between body and space," is one way through which to access this power.[25]

5.5 Conclusion

Lauren Wooley, a sound artist and theorist, has observed that:

> In the materiality of art, the possible is inherent, always, already. It is the body, though, which is needed to materialize this possibility, and it is within the body, and through the body, that this actualization occurs. To this end it is the (active) materiality of art. In the body the art inhabits the possibility of its own becoming.[26]

My description of Amacher's and Leitner's sound installations diverges in fundamental ways from traditional musical analysis. It does not comprise a map of these works, or relate descriptions of

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[25] Andres Bosshard, "Auf Der Suche Nach Dem Gutten Ton," in *Resonanzen: Aspekte Der Klangkunst*, ed. Bernd Schulz (Heidelberg: Kehrer Verlag), 98.
[26] Lauren Wooley, "Discontinuity in Motion: Walking the Virtual Body with Janet Cardiff," Master's Thesis (San Diego: University of California, San Diego, 2005), 40.

relationships between sounds. Instead, it focuses on my situated and embodied experience of these sounds as they inform the realization of my body in relation to itself and in relation to other bodies—social, physical, and imaginary bodies—that make up the complex and unpredictable networks of space and place.

"The body," Judith Butler writes, "is an historical idea and set of possibilities to be realized. […] [It is] a continual and incessant *materializing* of possibilities."[27] Realizing the body through its interface with sound and space suggests new possibilities of becoming for the body, stretching its old limits and creating new ones. Where sound, body, and space meet, new dimensions of, and sensitivities towards, environments can develop, and our relationship to these environments can be re-imagined and transformed.

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[27] Judith Butler, "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory," *Theatre Journal* 40 (1988): 521.

CHAPTER SIX

CONTESTED SPACES

6.1 Introduction

The body-based sound installations introduced in the previous chapter, while not directly concerned with critical discourses, inspire critical approaches to experiencing sound. By situating sounds inside the spaces of the body, these works challenge well-worn models of listening and reception, and develop within critical frameworks that favor the particular and experiential over the universal and disembodied. This chapter examines the work of artists who are directly engaged with critical, and even radical, discourses and practices. Their works not only interrupt traditions in music and sound art; they also directly engage with radical and oppositional traditions like feminist and post-colonial critique, positing and enacting multiple modes of social, cultural, and political resistance.

In the last twenty years, an increasing number of interdisciplinary artists have used sound to articulate and engage a politics of resistance. This group includes such contemporary artists as Rebecca Belmore, Santiago Sierra, and Mendi+Keith Obadike; their works variously confront the politics of ethnicity and nationality, race, class, gender, colonialism, and globalization in contemporary cultures. For example, for her 1991 work *Ayum-ee-aawach Oomama-mowan*, the Canadian performance and media artist Rebecca Belmore installed a giant megaphone in various locations in the Rocky mountains. The megaphone carried the voices of Native Canadians who were gathered to "speak to their mother." Belmore writes of *Ayum-ee-aawach Oomama-mowan* that:

> This artwork was my response to what is now referred to in Canadian history as the "Oka Crisis." During the summer of 1990, many protests were mounted in support of the Mohawk Nation of Kanesatake in their struggle to maintain their territory. This object was taken into many First Nations communities—reservation, rural, and urban. I was particularly interested in locating the Aboriginal voice on the land. Asking people to address the land directly was an attempt to hear political protest as poetic action.[1]

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[1] Rebecca Belmore, "*Ayum-ee-aawach Oomama-mowan: Speaking to their Mother*," http://www.rebeccabelmore.com/exhibit/Speaking-to-Their-Mother.html



Figure 6.1: Rebecca Belmore, *Ayum-ee-aawach Oomama-mowan* (1991). Photographer: Don Lee. Belmore says of this work that, "protest often falls on deaf government ears, but the land has listened to the sound of our voices for thousands of years."[2]

For his similarly charged work *2 Maraca Players* (2002), the conceptual artist Santiago Sierra hired two bind men, "of the type usually found begging in the streets of the downtown area [of Mexico City]" to carry out their "job" in a Mexico City gallery. With this work, Sierra literally amplifies the uneven processes of economic exchange that result in dispossession on a mass scale.

2 Lucy R. Lippard, *The Lure of the Local: Senses of Place in a Multi-Centered Society* (New York, New Press, 1997), 15.





Figure 6.2: Santiago Sierra, *2 Maraca Players* (2002). Photo: Santiago Sierra. Sierra writes of this work that, "although their working day is longer, they were hired to play [maracas] for four hours a day for a month. Finally, the gallery prompted them to play only when a visitor arrived. Six loudspeakers were used to amplify the sound."[3]

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[3] Santiago Sierra, "2 Maraca Players," http://www.santiago-sierra.com/200201_1024.htm

In another example of a sound work that reflects upon the politics of race and class in the context of a globalized society, the interdisciplinary sound and media artists Mendi+Keith Obadike created *4-1-9* (2005) an installation and musical suite based on email scams. They explained of *4-1-9* that:

> 4-1-9 is the name for a fund transfer scam or con commonly believed to originate from Nigeria. Each email tells the story of a modern African tragedy in fewer than five hundred words. These letters are actually created around the world. However, they often use names and locations that are particular to Nigeria or other parts of Africa. What idea of Africa do the composers of these letters hope to invoke?



Figure 6.3: Mendi+Keith Obadike, *4-1-9* (2005). Internet, gallery installation and live performance. Photo: Mendi+Keith Obadike. The Obadikes installed *4-1-9* in an ATM machine at the New Museum of Contemporary Art in New York City. It allowed visitors to write their own 4-1-9 letters, and using software designed by the artists, it created songs based on the data contained within those letters.[4]

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[4] Uncredited photo. From Mendi+Keith Obadike, "4-1-9, OR YOU CAN'T VIEW A MASQUERADE BY STANDING IN ONE PLACE," www.blacknetart.com

These works by Belmore, Sierra, and the Obadikes challenge audiences to hear critically in a way that extends beyond conventional acts of listening; they inspire audiences to listen through contested social, cultural, and political landscapes, and in the process imagine what a critical reinterpretation of these might entail.

This chapter examines the work of two artists whose works reflect and resist politics of gender and race in contemporary cultures. The first part of the chapter introduces the work of the Canadian radio artist and researcher Anna Friz, whose works posit a critical, and specifically a feminist, radio utopia. Friz's creative practice develops in the context of contemporary information cultures. It enacts an oppositional spatial strategy with respect to the dominant spatial expression of these cultures ("non-places"). My discussion shows how Friz's works recover the lost "places" of radio communication, reinserting "placed" (rooted, localized, embodied) expressions into "placeless" information flows. Such a gesture can be interpreted as a feminist act, since it reinserts a female-gendered "space of places" into a male-gendered "space of flows."

The second half of this chapter examines the very recent work of Kara Lynch, an interdisciplinary artist whose "forever" work *Invisible* (2001-ongoing) deals in part with what Lynch calls the "conspicuous invisibility of blackness."[5] The discussion of *Invisible* takes the form of a metaphorical "map": it develops as a series of "zones" that gather networks of critical thought on a variety of subjects. These include the mechanisms of coding and abstraction in African American media, the idea that water and blood can be considered informational technologies, and the dialectics of materiality and immateriality that frame considerations of black subjectivity. Together, these zones represent regions of Lynch's individual creative history, showing how this history emerges in connection to a collective history of African American cultural expression. The map positions history as a system of interwoven memory networks, and suggests that the "place" of music might not be the site of sound, but instead, the social production of memory.

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[5] Kara Lynch, "episode 03—meet me in Okemah," *Xcp: Streetnotes* (Spring 2005), http://www.xcp.bfn.org/lynch2.html

PART ONE: Anna Friz

6. 2 Radio, Place, and Non-Places

> *Our culture and our place are images of each other and inseparable from each other, and so none can be better than the other.*
>
> -Lucy R. Lippard, *The Lure of the Local* [6]

In her 1994 article "The Soundscape on Radio," the Canadian soundscape artist Hildegard Westerkamp posed a number of critical questions on the relationship of radio to place that still await response. Decrying the fact that, "Most radio engages in relentless broadcasting, a unidirectional flow of information and energy," Westerkamp pondered:

> What would happen if we could turn that around and make radio listen before imposing its voice? […] What if radio was non-intrusive, a source for listeners and listening?

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[6] Lippard, *Lure of the Local*, 12.

> Can radio be such a place of acceptance, a listening presence, a place of listening?[7]

The recent work of Anna Friz, a Canadian radio artist and researcher who creates radio-based sound installations, answers Westerkamp's questions in the affirmative. With respect to Friz's work, Westerkamp's questions no longer seem to frame an unattainable ideal, so much as they strategize a radical reinterpretation of radio that can be, and that is being, put into action.

The following sections explore Anna Friz's radio practice as it develops within an aesthetics and a language of place, specifically showing how her practice operates as an *oppositional spatial strategy* within supermodernism or informational capitalism (i.e. the "Information Age"). A period in which information is considered to be the most valuable currency, radio's "relentless broadcasting" can be seen as another structural mechanism within a vast system of flows that governs global political, economic, and cultural exchanges, and that determines the spaces within which these exchanges develop.

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[7] Hildegard Westerkamp, "The Soundscape of Radio," in *Radio Rethink: Art, Sound and Transmission*, ed. Diana Augaitis and Dan Lander (Banff: Walter Philips Gallery, 1994), 94.

In recent criticism, the supermodernist era has been theorized as a period in which space is shrinking, in which space is reduced to a transit zone, and in which *places*—points of local focus and attachment—have been supplanted by "*non-places*": places to which people are unable to form meaningful attachments, because their social identities and their behaviors are reduced to informational transactions within them.[8]

Concepts of non-place or u-*topia* are not foreign to radio discourses. In the first decade of its invention, radio was heralded as a technology that could be used to achieve spatial transcendence—as a tool with which to "overcome" space. Friz, whose current research concerns the changing nature of what she calls "radio presence," says that early radio was conceived as "an extraordinary connection between individuals across space."[9] In the early decades of the twentieth century, Futurist radio utopias—as famously depicted in the

[8] See Paul Virilio, *Vitesse et politique* (Paris: Galilée, 1991). See also Marc Augé, *Non-Places: Introduction to an Anthropology of Supermodernity*, trans. John Howe (London: Verso, 1994). See also Hans Ibelings, *Supermdernism: Architecture in the Age of Globalization* (Rotterdam: Nai Publishers, 2002). See also Manuel Castells, *Information Age, Vol. 1: The Rise of the Network Society* (Oxford: Blackwell Publishers, 2002).
[9] Anna Friz, conversation with the author, 1 December, 2006.

1933 manifesto *La Radia*—sought to eliminate space.[10] In modernist discourses, radio was seen as "a universal language" that could unite bodies and spirits—whether living, dead, or alien—across geographical, cultural, and even metaphysical boundaries.[11] As radio became increasingly regulated by nation-states, the dream of a transceptive radio—one that could link multiple senders and receivers—dissipated. In its wake, radio reemerged as a tool for state control, a mass medium, a unidirectional apparatus designed to establish the "voice of a nation." By the mid-century, radio functioned predominantly as a tool for maintaining, not disrupting, borders.

More recently, under the decentralizing pull of informational capitalism, the non-places of radiophonic space have reappeared, although under a different guise. The global exchange networks of informational economies have co-opted radio territories, transforming them into yet another transit zone that users can navigate in their relentless travels from one non-place to another. Like the highways,

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[10] See F.T. Marinetti and P. Masnata, "La Radia," in *Wireless Imagination: Sound, Radio, and the Avant-Garde*, ed. Douglas Kahn and Gregory Whitehead, 265-68 (Cambridge: MIT Press, 1992).

[11] See Gregory Whitehead, "Out of the Dark: Notes on the Nobodies of Radio Art," in *Wireless Imagination: Sound, Radio, and the Avant-Garde*, ed. Douglas Kahn and Gregory Whitehead, 253-64 (Cambridge: MIT Press, 1992).

airports, strip malls, and computer terminals described by Marc Augé in "Non-Places: An Introduction to the Anthropology of Supermodernism," radiophonic flows that service transnational interests work to displace radio places: local, community, and point-to-point networks.

In the context of informational capitalism, the politics of localization become critically poised to recover the rooted identities and grounded cultural expressions that are otherwise subsumed within global exchange networks. Anna Friz's radio art reveals the hidden, localized places of radiophonic flows, the placed bodies that ground radio transmissions. Her practice draws upon a feminist philosophy, and enacts a critical spatial strategy with respect to dominant modes of supermodernism and informational capitalism. In a recent conversation, Friz hints at the underpinning of her nuanced creative philosophy: "We *are* radio," she says. "Radio *is us*."[12]

[12] Anna Friz, conversation with the author, 16 November, 2006.

6. 3 Anna Friz, Modern Day Feminist Techno-Pirate

> *Radio girls are pirates. We speak in a multiplicity of tongues, fracture the notion of a coherent internal space from which to uncover our own voices. We deploy its accidents and excesses to communicate multiple desires.*

-Kim Sawchuk, "Pirate Writing"[13]

Born in Vancouver in 1970, Anna Friz is a vivid example of what the Canadian media theorist Kim Sawchuck calls a "modern day feminist techno-pirate."[14] A hardcore technophile whose obsession with sound gear borders on the fetishistic, Friz has made considerable contributions to addressing the "special invisibility" of women in radio and sound art.

In Friz's explicitly feminist repertoire there is *Radio Free Women*, a feminist "talk-and-rawk" show she hosted on Vancouver's CiTR Radio between 1993 and 1995, and "Heard but Un-scene: Women in Electronic Music" (2004), an article she wrote as a board member of the Montreal-based feminist art collective *Studio XX*. In that article, Friz

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[13] Kim Sawchuck, "Pirate Writing: Radiophonic Strategies for Feminist Techno-Pirates," in *Radio Rethink: Art, Sound, and Transmission*, ed. Diana Augaitis and Dan Lander (Banff: Walter Philips Gallery, 1994), 213-214.
[14] Ibid., 218.

laments the fact that big-budget electronic music festivals, like *Mutek* and *Elektra* in Montreal, have "failed miserably" to seek out work by women artists. She not only holds specific presenters accountable for this discrepancy, but more immediately, addresses the problematic theoretical and aesthetic undercurrents that drive these male-dominated scenes. Specifically, Friz critiques the liberatory and utopian rhetoric employed by self-styled "outsiders" who fail to recognize their own positions of power and privilege within these worlds.

In sharp contrast to the glitch, clicks 'n' cuts, and microsound practices so heavily featured in these predominantly white, Western, and male-dominated sound and radio art festivals—practices which claim to escape the hegemony of Western art music in their a-referentiality and minimalist aesthetic—Friz's radio art is an unsettlingly intimate, evocative, and often grand affair. Drawing on her multiple talents as a composer, installation artist, and instrumentalist (Friz prefers instruments that "breathe and oscillate" like the harmonica, accordion, and theremin), performance artist, and storyteller (she cites Laurie Anderson, Miranda July, and William S. Burroughs among her major influences), Friz's practice not only breaks with popular aesthetic

conventions in contemporary radio art, but also perverts conventions in radio broadcasting and scholarship.

The multiple border-crossings in Friz's work include a privileging of communications paradigms over the uncritical celebration of communications technologies, and a transmission practice that often develops in unregulated, contested, and illicit spaces.

In the late 1990s, Friz began creating what she calls "self-reflexive radio," an artform in which radio is the source, the subject, and the medium of the work. These radio-about-the-radio works typically straddle complex narrative structures, making use of archival recordings, original field recordings, and instrumental and vocal performances by Friz and her collaborators.[15] A single work will typically be reincarnated multiple times and in multiple formats, existing as live performances on radio, concert performance, and sound installation.

Friz says of her current work in self-reflexive radio that she is concerned not so much with the mechanics of transception—the

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[15] Friz's collaborators include Owen Chapman, Annabelle Chvostek, Eric Leonadrson, Emannuelle Madan, and the collectives *free103point9* and *The Church of Harvey Christ*.

ability to both send and receive—as she is with transception as a critical paradigm for communication. Her inquiry therefore moves beyond technical considerations in order to reflect upon the evolving notion of network, the concept of wireless transmission in general, and the ontology of the sender/receiver.

6.4 Clandestine Transmissions

Radio girls refuse to clean up the noise.

-Kim Sawchuk, "Pirate Writing"[16]

Friz's first major project in the vein of self-reflexive radio and transception ontology is "The Clandestine Transmissions of Pirate Jenny" (2002), a work that has variously taken shape as live gallery performances, studio broadcasts (once on Austrian national radio), and live campus, community, and pirate radio. Friz describes the work as "the tale of a radio pirate and mutineer, transmitting from inside the black box of radio technology that is atopic, a Futurist nightmare of

[16] Sawchuck, "Pirate Writing," 214.

technological determinism in which she is imprisoned without contact with others of her kind."[17]

In it, Friz tells the story of Pirate Jenny, one of the fictional "little people who live inside the radio" who Friz would conjure as a young girl. Isolated inside her radio due to corporate downsizing, Pirate Jenny must incessantly service the voracious appetites of The Ears, anonymous listeners who demand a constant stream of Top-40 hits, traffic, news, and weather reports. In her few precious moments away from The Ears, Pirate Jenny sends out desperate SOS-es to unknown potential listeners, and begs for a response.

> **Girl:** Are there little people who live inside the radio? If I leave the radio on does that mean they have to keep talking, even if no one's listening? If I leave the radio on all night does that mean they don't get to sleep either? What do they do when I turn off the radio?
>
> **Pirate Jenny:** [*static*] This is Free Radio Relay on 49.850 MegaHertz. If you're receiving this signal please respond. [*static, bleeps*]. This is Pirate Jenny on 49.850 MegaHertz. This is FreeRadio Relay. Repeat this is not a regular broadcast. This is an S.O.S. Please respond. [*noise*]
>
> **Woman**: In the early days of radio we were better organized. But slowly we became isolated. Gradually we evolved to fit the box so perfectly that leaving was

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[17] Anna Friz, "The Clandestine Transmissions of Pirate Jenny," M.A. Thesis (Montreal: Concordia University, 2003), 16.

> impossible. So for nearly a century we served The Ears, but secretly strained to hear an echo of any of the others. [*electronic bleeps*]. I began to hear the sounds of other radios. I knew they were there but they couldn't hear me. And so now, now I've adjusted my methods. [*static, electronic instruments, theremin*]
>
> **Pirate Jenny:** This is Pirate Jenny on 49.850 MegaHertz. This is Free Radio Relay. This is a message to all the people in Radioland. If you can get this message, please respond. If you're receiving [*signal breaking, theremin, static*]… please respond…[*static*]… please respond…[*long instrumental solo*]

In "The Clandestine Transmissions of Pirate Jenny," Friz creates radio soundscapes out of the raw materials of communication, layering modified voices with intercepted signals, static, radio scanning, and noise. Messages are heard in various stages of development: as fully-formed signals, audio traces, and embryonic and aborted sounds. Signals appear and just as quickly disappear; input/output technologies are triggered and abandoned; sounds are approached and turned away; all of these are layered with waves of ambient sound, SOS-es, radar devices, walkie-talkies, and code. These materials—the sonic detritus of radio communications—provide the background for a network of desirous bodies whose voices illuminate the *terra incognita* of radioland. For Friz the in-between places of the radio are not "dead air zones, but uncharted airwaves rich in meaning and potential—the

habitat of the little radio people, the mythical offspring of radio technology."[18]

It is significant that Friz reveals the "meaning and potential" latent in these liminal radiophonic spaces not by broadcasting information, but by broadcasting noise. Noise, always a contested domain, what the philosopher Jacques Attali once called "a concern of power," holds special meaning in an informational economy.[19] The presence of noise in informational capitalism designates the undesirable part of a signal, the part that dirties the waters of reception, clogging the arteries and passageways in a system of flows that requires unimpeded fluidity in order to function.

In classic information theory as conceived by Claude Shannon, information equals signal minus noise; and, according to N. Katherine Hayles, a message is, "an information content specified by a probability function that has no dimensions, no materiality, no necessary

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[18] Friz, "The Clandestine Transmissions of Pirate Jenny," 18.
[19] Jaques Attali, *Noise: The Political Economy of Music*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1985), 27. Attali (1985) writes that noise is "a concern of power; when power founds its legitimacy on the fear it inspires, on its capacity to create social order, on its univocal monopoly of violence, it monopolizes noise."

connection with meaning."[20] As it is often pointed out, the human part of this equation is conveniently left out of Shannon's formulation. In "Pirate Jenny," Friz re-inserts the noisy flesh of humanity back into the equation, recuperating the *real matter* of communication: which is not sound or signal or anything else that can be translated into wave-formation, but, more fundamentally, the desire and the need for contact.

Pirate Jenny never broadcasts any "valuable" or "useful" information. Instead, in her self-consciously revolutionary way, she asks her accidental listeners, "Are you one of us?" and instructs them to "broadcast only noise."

In the same ways that radical performance and conceptual artists in the 1960s produced dematerialized art works that functioned outside the dominant economic logic of object production and consumption, Friz engages a radical model of communication whose dimensions do not fit within—and which therefore disrupt—the dominant economic logic of informational capitalism. She writes,

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[20] See N. Katherine Hayles, "The Condition of Virtuality," in *The Digital Dialectic: New Essays on New Media*, ed. Peter Lunenfeld, 69-94 (Cambridge: MIT Press, 1999).

"through these soundscapes, programming and noise cease to be binary opposites… the programming *is* noise, and the point is that noise *is* meaningful sound."[21]

In the context of an informational economy, receiving noise transforms the passive ear into a critical one. The critical ear becomes a transceptive instrument, one that can receive "empty" signals and reciprocate meaning. The transceptive ear supplies information where there appears to be none; it produces currency out of that which appears to have no value—and capitalizes on it. As Pirate Jenny says, "If you are receiving this message and can't respond, please send more static."

6.5 Vacant Cities: Supermodernity and Displacement

> *If place is defined by memory, but no one who remembers is left to bring these memories to the surface, does a place become noplace?*
>
> -Lucy R. Lippard, *The Lure of the Local*[22]

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[21] Friz, "Clandestine Transmissions of Pirate Jenny," 18-19.
[22] Lippard, *Lure of the Local*, 23.

Friz's self-reflexive radio art, while being centrally concerned with ontologies and paradigms of radio communications, is perhaps even more virtuosic in its consideration of place. Her recent work, while continuing along an aesthetic trajectory that reveals and resists the supermodernist production of non-places, also engages the idea that place is always *in* communication, and communication is always *in* place.[23]

In her 2005 work "Vacant City Radio," Friz explores the absence of place as it emerges in relation to the absence of memory. Between 2001 and 2002, Friz collected soundscapes of empty, abandoned industrial sites from along the Lachine Canal in Montreal, as part of Andra McCartney's project "*Les Journées sonores*." Several years later, those sites were either completely demolished, or else renovated into pristine offices and condominiums for the upwardly-mobile. Friz combined these soundscapes of industrial ruin, captured in the prime of their decay, with sounds culled from the "lost cities" on the shortwave dial. She explains that many transistor radios were designed with names

[23] See Paul Adams, Steven Hoelscher and Karen Till, ed. *Textures of Place: Exploring Humanist Geographies* (Minneapolis: University of Minnesota Press, 2001).

of cities in place of frequencies on the dial; tuning into those stations now "often yields only static."[24]

"Vacant City Radio" opens with the sounds of these static radio wastelands, followed by an archival recording of a voice that exemplifies what Francis Dyson identifies the male voice of authority that has long dominated radio transmissions.[25] The job of this voice is to recruit reluctant civilians to join in the cause of "progress," which, in this case, is the demolition of historical buildings. "Surely obsolescence should not cause despair," the voice asserts and assuages:

> …It is one of the results of rapid growth. The hammer of demolition will be sure to swing with determination. In this jet age, events move fast—faster indeed than we sometimes realize. But our progress is certain to be steady as we clear away the structures that block progress.

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[24] Anna Friz, Anna Friz, "Vacant City Radio," *Architecture/Music/Acoustics* conference (Ryerson University, June 8-10 2006).

[25] See Francis Dyson, "The Genealogy of the Radio Voice," in *Radio Rethink: Art, Sound, and Transmission*, ed. Diana Augaitis and Dan Lander, 167-88 (Banff: Walter Philips Gallery, 1994).

Michel de Certeau has written that, "Every site is haunted by countless ghosts that lurk there in silence to be evoked or not."[26] In "Vacant City Radio" these haunted sites are simultaneously real, imagined, and networked. They are the imposing, modernist hulks of the Industrial Age—colossal, uniform, functionalist buildings designed for laborers that have metamorphosed into light, airy, supermodernist architectures enjoyed by yuppies and other mobile elites.[27]

Friz captures these architectures in transitional states, sounding out their histories and their potentials as they cross over from the "monumental industrial past [to] the generic present."[28] She does this in part by interacting with the spaces, by putting her body in active relation to them. "Instead of history," Friz explains, "I encountered traces of spaces enabled by my own explorations through empty buildings or

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[26] Didia DeLyser, "When Less is More: Absence and Social Memory in a California Ghost Town," in *Textures of Place: Exploring Humanist Geographies*, ed. Paul Adams, Steven Hoelscher and Karen Till (Minneapolis: University of Minnesota Press), 24.

[27] The architectural theorist Hans Ibelings (2002) describes modernist architectures as being characterized by functionalism, sameness, coherence, uniformity, geometric forms, high tech structures and materials, neutrality, and minimalism. Conversely, Ibelings suggests that postmodern architectures are extravagant, expressive, ostentatious, and that supermodernist architectures are light, monolithic, abstract, formally reduced, massive, transparent, smooth, glassy, and sensational.

[28] Friz, "Vacant City Radio."

scratching across vacant frequencies. I encountered spaces through interference."[29] We hear Friz's body as it moves through and articulates these haunted sites, her footsteps, actions, and voice resonating in, and altered through, her interactions with a sequence of diverse forbidden architectures.

The haunted sites of "Vacant City Radio" are also the sites of memory, which are literally paved over during periods of decline and displacement. When place disappears or turns into non-place, it takes memory with it. Memory, as it develops in relation to history, identity, and lived experience, is not required to pass through a transit zone. When supermodern travelers scan, surf or otherwise navigate non-places, they also *travel through* memories, histories, identities, and lived experiences; all of these are reduced to indistinguishable, mutable signals that make up endless informational transactions.

6.6 Toward a Critical Utopia

> *The lure of the local is the pull of place that operates on each of us, exposing our politics and our spiritual legacies. It is the geographical component of the psychological need to belong somewhere, one antidote to a prevailing alienation. The lure of the local is that undertone to*

[29] Ibid.

modern life that connects it to the past we know so little and the future we are aimlessly concocting.

-Lucy R. Lippard, *The Lure of the Local* [30]

The feminist philosophers Luce Irigaray and Julia Kristeva have observed that the concept of space in modern Western cultures is associated with femininity, while time is associated with masculinity.[31] They argue that space is traditionally constructed as passive and inert, and therefore gendered female, while time is considered active, and therefore gendered male. Similarly, Doreen Massey has pointed out that, “whereas time is seen as fluid and provisional, space and location tend to be theorized as stasis and fixity.”[32]

If modernism can be considered a masculinist condition in that it manifests as a series of displacements—with the phallic arrow of progress moving through, demolishing, and replacing inert architectures—then supermodernism can be considered a hyper-

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[30] Lippard, *Lure of the Local*, 7.

[31] See Luce Irigaray, “Sexua Difference,” in *French Feminist Thought: A Reader*, ed. T. Moi (Oxford: Blackwell, 1986). See also Julia Kristeva, “Women’s Time,” in *Kristeva Reader*, ed. T. Moi (Oxford: Blackwell, 1987).

[32] Linda McDowell, *Gender, Identity & Place* (Minneapolis: University of Minnesota Press, 1999), 208.

masculinist expression in that it does away with space altogether, transforming it into a series of "placeless places."[33] In his study on contemporary networked societies, the sociologist Manuel Castells argues that information economies have profoundly transformed concepts of space. Under informational capitalism, he writes, a new paradigm of space emerges: a "space of flows," which replaces an older "space of places."[34] While places themselves do not disappear within this new spatial logic, Castells maintains, their meaning and their function become absorbed within the network of communication that defines contemporary life.[35] The architectural theorist Hans Ibeling finds similar resonance in supermodernist architectures. If place can be defined as a locale that has acquired meaning through human activities, he writes, then "non-places can be seen as typical expressions of the age of globalization."[36]

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[33] See Castells, *The Information Age, Vol. 1: The Rise of the Network Society*.
[34] According to Castells the space of flows is "the new spatial form characteristic of social practices that dominate and shape the network society." He defines "flows" as "purposeful, repetitive, programmable sequences of exchange and interaction between physically disjointed positions held by social actors in the economic, political, and symbolic structures of society." Castells, *The Information Age, Vol. 1*, 442.
[35] Ibid., 443.
[36] Ibelings, *Architecture in the Age of Supermodernism*, 66.

In the context of supermodernism, Anna Friz's radio practice can be seen to enact a critical, and specifically a feminist, radio utopia. Whereas Futurist radio utopias had sought to achieve the "immensification of space" and modernist radio utopias had sought to attain universalism, Friz's critical model of a radio utopia does not seek to *overcome* distance, but instead *reveals* distance, by highlighting the multiple points and places where communication occurs.[37] In a recent conversation, Friz says:

> The early avant-garde believed radio would overcome distance and time, unite people across the world, embrace humanity in a kind of union through spark-speech. I want to emphasize the distance that I hear in the radio, because that dream of union is the most mortal dream, is where I hear the most humanity.[38]

Thus, while Friz has in her arsenal explicitly feminist works, her practice at large develops within an implicitly feminist framework, by recovering a female-coded "space of places" in a male-coded "space of flows."[39] In this way, Friz's self-reflexive radio art recovers the distance that is so often maligned in communications theory and

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37 See Marinetti and Masnata, "La Radia."
38 Anna Friz, conversation with the author, 14 November, 2006.
39 See Castells, *The Information Age, Vol. 1: The Rise of the Network Society*.

practice, but that is, paradoxically, necessary for communication to even occur.

6.7 The Lure of the Local

> *The word place has psychological echoes as well as social ramifications. "Someplace" is what we are looking for. "No place" is where these elements are unknown or invisible, but in fact every place has them, although some are buried beneath the asphalt of the monoculture, the "geography of nowhere." "Placelessness," then, may simply be place ignored, unseen, or unknown.*
>
> -Lucy R. Lippard, *The Lure of the Local*[40]

Since the late 1990s, Anna Friz has produced a substantial body of radio art that refocuses the relationship of transmission to the production of place. Her work reveals networks of identity and distance as these are made audible in and through place: alternately lived, constructed, and imagined environments, each simultaneously grounded and wireless. Through her practice, Friz reconfigures the radio as a site of resistance: resistance to dominant constructions of space within contemporary globalized, supermodernist cultures, resistance to the politics of informational capitalism, and resistance to the uneven flows that these cultures and these politics engender.

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My discussion of Friz's work opened with questions by Hildegard Westerkamp on radio and place which were long overdue a response; it closes with new questions by Anna Friz which should elicit fresh responses. In her program notes on a recent radio installation, an immersive environment that uses four transmitters and over sixty receivers, Friz writes:

> Rather than dream again of radio transmitting messages from those who have already passed, what communication might we be missing from those living around us? What nearly inaudible signals… might we hear if the radio was tuned to hear? What do people seek to transmit, in a moment between the intake of breath and the breath held, waiting, in tension?

She calls this work "You Are Far From Us."

PART TWO: Kara Lynch

6.8: Key

The following sections are designed as a kind of map. This map describes regions of an individual creative history, that of the American artist Kara Lynch, as they emerge in connection to a collective history of African American cultural expression. In the map, history is positioned as a complex, dynamic system of interwoven memory networks; the mapmaker attempts to illuminate some of the points, lines, and spaces that make up these particular networks. Even while illuminated, however, these networks remain contingent, transient, and imagined: "moving continuities" that contain multiple discontinuities, ruptures, and slippages.[41]

As with all maps, this one features incomplete and inaccessible regions (regions that are disappeared or disappearing), places of faulty shading, and problematic issues of scale. The responsibility for these

[41] Henri Bergson. *Matter and Memory*, trans. Nancy Margaret Paul et al. (New York: Dover, 2004 [1896]), 260.

inaccuracies lies with the mapmaker's limited vision, and an history of mapmaking that has privileged certain kinds of vision and denied others. Visibility, invisibility, and their shadowy relationships to structures of power and dominance become keys to deciphering the map. Ralph Ellison, whose lifelong project it was to illuminate the invisibility of blackness, has written:

> I am invisible, understand, simply because people refuse to see me. That invisibility to which I refer occurs because of a peculiar disposition of the eyes of those with whom I come in contact. A matter of the construction of their *inner* eyes, those eyes with which they look through their physical eyes upon reality.[42]

The significance of the positioning of points, lines, and spaces in the map is not fixed, but contingent upon the perspective—the *inner eyes*—of the user. Unlike most maps of the Earth, elevation—or distance of land mass from the sun—is not designated here through coloring, shading, or other devices. There is no sun around which memory revolves, no point at which memory can be said to be closer or further away from truth. Truth revolves around memory; memory is the sun that pulls history and other objects toward itself.

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[42] Ralph Ellison, *Invisible Man* (New York: Vintage Books, 1980), 1. Emphasis in original.



Figure 6.4: The barefoot corpse of Laura Nelson. May 25, 1911, Okemah, Oklahoma. Photographer: G. H. Farnum,1911.



Figure 6.5: The lynching of Laura Nelson and her son, L.W., with several dozen onlookers. May 25, 1911, Okemah, Oklahoma. Photographer: G.H. Farnum, 1911.

At the heart of the map there is not only a Lynch but also a lynching. The lynching is that of Laura Nelson, who along with her son L.W. in April 1911, joined the ranks of thousands of African Americans

who, through the terrifying power of mob frenzy fueled by the aspirations of white supremacy, became the subjects of exemplary violence in the early part of the century.[43] A photograph of Laura Nelson's lynched body, suspended between a bridge and a river by a single piece of rope, provides the skin upon which the map is drawn; the mapmaker's conversations with Lynch about her creative process provide the air.[44] The bridge and the river are metaphors for "an unrememberable past and an unimaginable future."[45] They frame a dialectic of materiality and immateriality with which, according to Michelle M. Wright, all considerations of African American subjectivity must contend.[46] The present is also there in the map, as it is in the photograph; it can be described in general as a politics of suspension.

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[43] According to the archives at the Tuskegee Institute, a minimum of 3,446 African Americans were the victims of lynching between 1882 and 1968. See "Lynching in America: Statistics, Information, Images," http://www.law.umkc.edu/faculty/projects/ftrials/shipp/lynchstats.html

[44] I interviewed Lynch on 20-21 June 2007 at her home in Woodridge, New York. All subsequent quotations in the text that are attributed to Lynch and to our interview refer to conversations that took place on these dates.

[45] Avery F. Gordon, *Ghostly Matters: Haunting and the Sociological Imagination* (Minneapolis: University of Minnesota Press, 1997), 4.

[46] Michelle M. Wright, *Becoming Black: Creating Identity in the African Diaspora* (Durham: Duke University Press, 2004), 4.

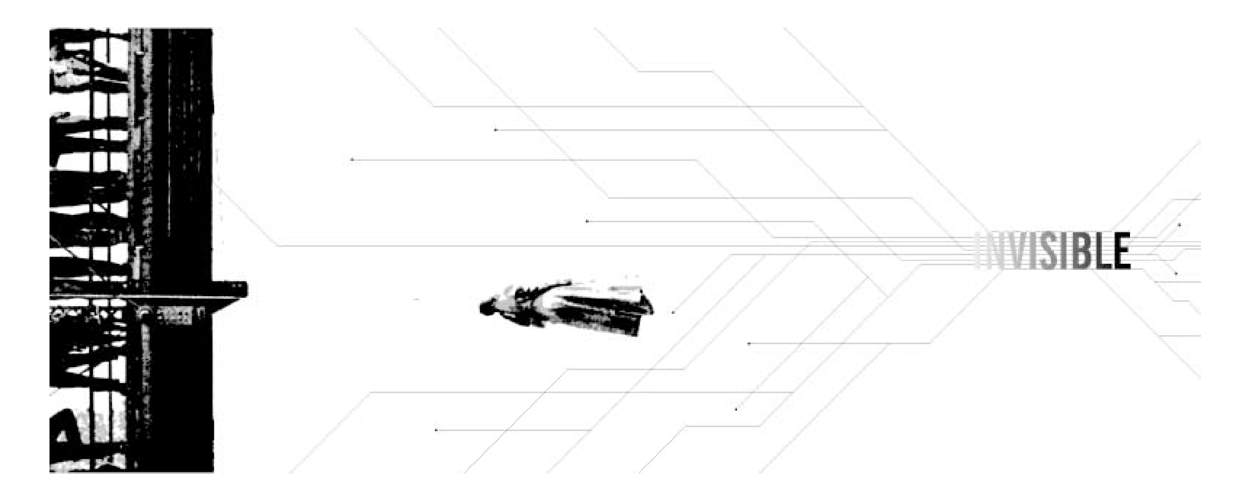


Figure 6.6: Invitation to *Invisible*, "Episode 03. Here And Now: Meet Me in Okemah, OK Circa 1911," front. Design: Chris Ferreria. Courtesy of Kara Lynch.

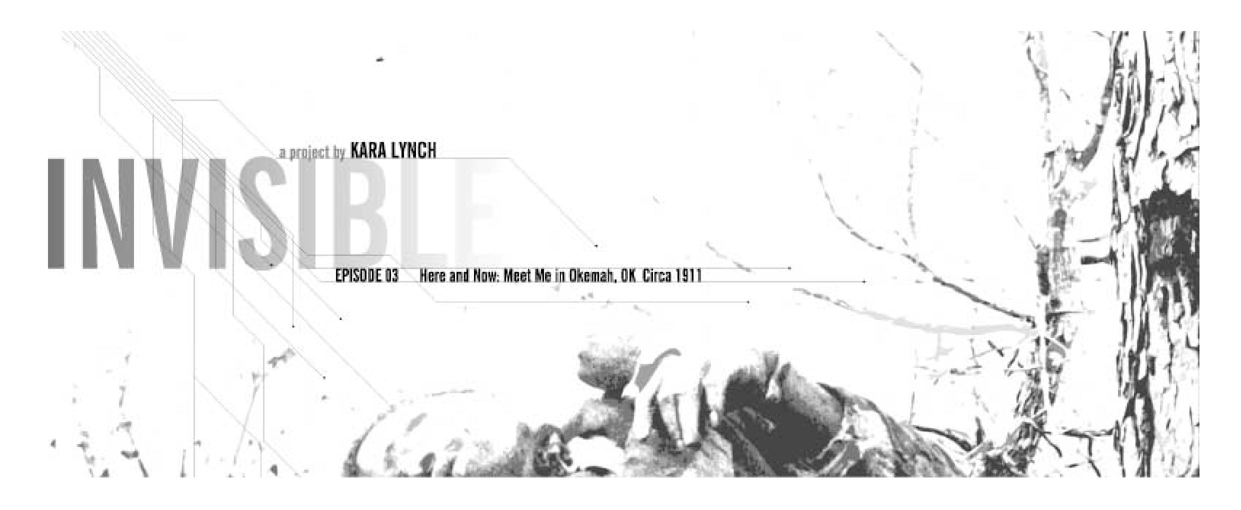


Figure 6.7: Invitation to *Invisible*, "Episode 03. Here And Now: Meet Me in Okemah, OK Circa 1911," back. Design: Chris Ferreria. Courtesy of Kara Lynch.

Kara Lynch calls the photograph of the lynching, and her subsequent setting of it, the "calling card" to her work *Invisible* (2001–ongoing): a multilayered, episodic audio-visual installation that merges speculative fiction with conceptual performance, and that powers the map and its attendant network of illuminations. Bodies

(specifically black bodies), bridges, rivers, and ghosts—their voices, their blood, and their haunted matter—populate the map more than any other form.

The map itself grows out of radical discourses that subvert and divert the relentless, linear, homophonic, amnesia-inducing flow of Eurocentrism. Specifically, it draws on the work of radical black thinkers who reorganize this transcendence-seeking flow, transforming it into multiple, complex grounded realities. The mapmaker's line of vision is ordered by the light of such critical voices as Octavia E. Butler, Angela Davis, Ralph Ellison, Saidiya V. Hartman, Langston Hughes, Jamaica Kincaid, George E. Lewis, Audre Lorde, Toni Morrison, Albert Murray, Alondra Nelson, Mendi+Keith Obadike, Adrian Piper, Olly Wilson, and Michelle M. Wright. Specifically, the map is constructed upon these voices' collective contention that definitions are *not* fixed property; that definitions can be recovered and reordered to reflect a multiplicity of perspectives. This is especially true here with reference to music. In opposition to discourses that frame music as the site of sound, through its consideration of Kara Lynch's *Invisible*, this map considers music instead as the product of memory, and the result of lived experience.

The map is not only a map; it is also an imperative to map. Cultural histories that are forgotten, erased, or lost—and especially those that are haunted—necessitate mapping devices that can help us navigate their spectral terrains. The structures of these terrains cannot be predicted or even imagined; they reveal themselves only as they are traversed. The rhythm of the traversal is therefore as significant as the map itself.

6.9 Zones of Cultural Haunting

> *Was my hunger for the past so great that I was now encountering ghosts?*
>
> -Saidiya V. Hartman, *Lose Your Mother*[47]

> *You wonder whether you aren't simply a phantom in other people's minds.*
>
> -Ralph Ellison, *Invisible Man*[48]

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[47] Saidiya V. Hartman, *Lose Your Mother: A Journey Along the Atlantic Slave Route* (New York: Farrar, Straus, Giroux, 2007), 16.
[48] Ellison, *Invisible Man*, 2.

In 1995, the critic Kathleen Brogan identified a literary genre that had emerged in recent African American writing: "the story of cultural haunting."[49] As distinguished from the more familiar ghost story, "that genre of short fiction that blossomed during the nineteenth century, leaving us with thrilling fireside tales of haunted houses, graveyard revenants, and Christmases past," the story of cultural haunting is concerned with the systematic erasure of collective histories.[50] The ghosts in these "haunted narratives" do not function merely as plot devices, as reflections of a character's repressed psyche or a character's brush with the taboo. Instead, they are communal ghosts that function as data-recovery devices; their appearance signals "an attempt to recover and make social use of a poorly documented, partially erased cultural history."[51] According to Brogan, "As both presence and absence, the ghost [in stories of cultural haunting] stands as an emblem of historical loss as well as a vehicle of historical recovery. It offers writers who take as their subject the survival and transformation of ethnic cultures, who recognize disconnection even as

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[49] See Kathleen Brogan, "American Stories of Cultural Haunting: Tales of Heirs and Ethnographers," *College English* 57/2 (1995): 149-165. Among the works identified by Brogan in the genre are Paule Marshall's *Praisesong for the Widow* (1983), Gloria Naylor's *Mama Day* (1988), and August Wilson's *The Piano Lesson* (1990).
[50] Ibid., 151.
[51] Ibid., 150.

they assert continuity, a particularly rich metaphor for the complexities of cultural transmission."[52]

Avery Gordon, who has constructed a sociology of haunting, finds similar resonances in African American communities. In *Ghostly Matters*—a text evolved from the premise that, "To study social life one must confront the ghostly aspects of it"—Gordon suggests that studying ghosts can transform ways of knowing, and knowledge about, forces like slavery and state terror that have shaped African American social life.[53] "Whatever can be said definitively about the long and varied traditions of African-American thought, writing, and radicalism," she writes, "the social reality of haunting and the presence of ghosts are prominent features."[54] As to why this should be the case, Gordon reasons that a community that "[cannot] amend the past, or control the often barely visible structuring forces of everyday life […] is bound to develop a sophisticated consciousness of ghostly haunts and is bound to call for an 'official inquiry' into them."[55]

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[52] Ibid., 164.
[53] Gordon, *Ghostly Matters*, 7.
[54] Ibid., 151.
[55] Ibid., 151.

Lynch's *Invisible* is such a consciousness and inquiry. It is an episodic work, and it is haunted in its episodic recall; its various episodes deal with traumatic historical events like mob lynching and the systematic enslavement, persecution, and neglect of black communities in the United States. As a haunted work, it emerges in uncanny ways. Since 2001, the year she finished her landmark documentary *Black Russians*, Lynch has been working on *Invisible*, what she considers a "forever project."[56] The forever-ness of *Invisible* is the forever-ness of memory and its infinite reflection in the lived environment. For Lynch, it is more precisely the forever-ness of the memory of slavery, a memory which is mapped out in Lynch's own lived environment in the United States in ways that she must continually process, negotiate, and re-reflect through this immense work.

The memory-processing that Lynch undertakes in order to create *Invisible* is by no means linear or readily apparent. I first encountered the work in Lynch's studio at the University of California, San Diego in May 2003, where it existed in embryonic traces that wrapped

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[56] See *Black Russians*, dir. Kara Lynch. New York: Third World Newsreel/Strangefruit Productions, 2001.

themselves around a busy room.[57] My most distinct memory of the work, as it appeared at the time, is of pieces of rope cluttering the space. While subsequent exhibitions of *Invisible* would never feature actual pieces of rope, in order to conceptualize the work Lynch became intimately familiar with the medium, learning how to tie a diverse repertoire of knots, how to gauge tensile strength, and how to otherwise read these historically loaded fibrous objects. As much as it can be said to be about any final product, *Invisible*—a work deemed to remain a work-in-progress—can be said to be about a gauging: a tying and untying of memories and meanings.

To date, two episodes of *Invisible* (and their myriad component parts) have been exhibited publicly: "Episode 03: Meet Me in Okemah, OK" and "Episode 12: 9th Ward." The former connects the lynching of Nelson and her son L.W. in Okemah in April 1911 with Lynch's trip to that site in the summer of 2003; the latter ties two traumatic events in African American history: the decimation of black bodies by a white mob in New Orleans in 1900, and the horrific fallout from Hurricane Katrina in 2005.

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[57] At the time, Lynch was studying toward an M.F.A. in Visual Art while on leave from her faculty position in the Department of Film and Video at Hampshire College.

While both episodes have been manifested in a number of forms—ephemera, sculpture, performance, etc.—their individual components are all somehow tied to sonic or musical structures. For example, some video components of "Episode 03" are visual responses to, or visual mappings of, audio components that may or may not be exhibited alongside them. In one exhibition of "Episode 03," two massive video projections were screened every dusk in two separate spaces, while four audio tracks played continuously in adjacent locations.[58] As Lynch tells it, these audio tracks "stood in" for the video tracks that were not shown during the day. The video was absent during the day not for technical concerns of visibility, but for symbolic ones. Lynch wanted to stress the different ways a "Negro" woman like Laura Nelson would have experienced her environment traveling between an all-white and an all-black town during the day and at night.

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[58] This exhibition of "Episode 03" took place in the Visual Art Department at the University of California, San Diego, from 1-7 December 2003.





Figure 6.8: "Episode 03" from *Invisible*. Department of Visual Art, University of California, San Diego. 1-7 December 2003. Photographer: Kara Lynch. Courtesy of Kara Lynch.

The privileging of sound as an organizing principle in *Invisible* is significant not only in terms of the way other media are negotiated in relation to it, but also because the presence of ghosts is often only sensed through the sounds that they make.



Figure 6.9: "Episode 03" from *Invisible*. Installed at the Visual Art Department, University of California, San Diego, 1-7 December 2003. Photographer: Kara Lynch. Courtesy of Kara Lynch.

At times, a component of *Invisible* might exist solely as audio. There is, for example, a nearly two-minute long electroacoustic "prelude" to *Invisible* called "Golliwog!" that can be heard as a stand-alone musical work, and that has also been exhibited as a sound

sculpture (in which the same music is continuously looped).[59] "Golliwog!" assembles a dense collage of archival recordings—auctions, crowds, a rodeo, a wedding party in which someone remarks "Look at that cake!," a bingo game, a windup music box, a wood block, laughter and cheers—and samples of recordings of music by the French composer Claude Debussy and the African American blues musician Taj Mahal.[60]

"Golliwog!" is a macabre musical setting of the cakewalk, a satirical African American folk music and dance that predicted ragtime music.[61] Among other juxtapositions, the piece contrasts the sounds of celebration with the rhythmic speech-song of an auctioneer, whose

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[59] The components of *Invisible* are all re-configured in different ways upon each exhibition of the work, depending on the particular demands of the site and the context in which they are shown. "Golliwog!" was exhibited as a sculpture in the context of *The Unconditional Cake Show* in the Herbert Marcuse Gallery at the University of California, San Diego in September 2003.

[60] Lynch gathered the archival recordings for "Golliwog!" from a British Broadcasting Corporation (BBC) library of early sound effects; the musical samples in "Golliwog!" include a recording of Claude Debussy's "Golliwog's Cake-walk" (the final movement in Debussy's 1906-1908 piano suite *Children's Corner*), and excerpts from Taj Mahal's 1972 song "Cakewalk into Town."

[61] The cakewalk, an exaggerated parody of aristocratic European dances, was originally performed by slaves in the context of competitions in which the winning dancer was sometimes awarded pieces of hoecake by the slavemaster.

alternately lulling and lifting voice is eerily inflected by the listener's suspicion that the item for sale is a black body.[62]

"Golliwog!" uses only pre-existing recordings which Lynch gathered, processed, and collaged. In composing the work she cut and pasted, looped and layered, filtered and modified samples (often altering parameters like their duration, frequency, and amplitude); she arranged samples within multiple intricate and interweaving rhythmic patterns, and set them within a nuanced stereophonic interplay, such that individual voices seamlessly jump out of, and vanish back into, a chaotic but cohesive aural scene. Lynch notes, however, that her conceptual synthesis of these sounds—her process of arranging, modifying, and filtering meanings into and out of a dense package of sonic information—is equally important as an organizational principal.

All the other audio components of *Invisible*, with the exception of "strangemissotis," combine archival recordings with field recordings made by Lynch during her visits to the different sites referenced in the

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[62] The auctioneer is actually selling hogs and cattle; Lynch references these sounds in order to evoke the sale of black people as human chattel. When "Golliwog!" was exhibited as a sculpture, the audio was projected from the inside of a bucket hidden under a mound of pennies; pennies also surrounded the bucket.

project.[63] These include the site of Laura Nelson's lynching in Okemah, Oklahoma, the city of New Orleans post-Hurricane Katrina, and the Juneteenth celebrations in Galveston, Texas.[64]

This map re-traces Lynch's travels through these sites, following her footsteps and her mindsteps through their non-linear, dynamic, polyphonic, and polymetric routes. It pauses at several "zones of cultural haunting," places that feature extensively in these routes. Although these zones appear to be separate regions, they contain multiple areas of convergence. When zones (bodies) meet, passing through one another, fresh ghosts appear.

6.10 Zone 1: Polyvalent Media

> *Slavery has ended, but something of it continues to live on, in the social geography of where peoples reside, in the authority of collective wisdom and shared benightedness, in*

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[63] The composition "strangemissotis" makes use of pre-existing recordings of Billie Holiday and Ella Fitzgerald, who respectively sing "Strange Fruit" and "Miss Otis Regrets."

[64] Celebrated annually on 19 June in fourteen states, Juneteenth commemorates the announcement of abolition of slavery in Texas. The announcement was made by General Gordon Granger on 19 June, 1865; slavery had been effectively abolished two years prior, on 1 January, 1863. Also known as Freedom Day or Emancipation Day, Juneteenth originated in Galveston, Texas.

> *the veins of the contradictory formation we call New World modernity, propelling, as it always has, a something to be done. The ghost enters, all fleshy and real, with wants, and a fierce hunger, and she speaks, barely, of course, and in pictures and a coded language.*
>
> -Avery Gordon, *Ghostly Matters*[65]

> *We came across the story of a blues man from the 1930s. A guy called Robert Johnson. Now the story goes that Robert Johnson sold his soul to the devil at the crossroads in the deep South. He sold his soul, and in return, he was given a secret of a black technology, a black secret technology, which we know now to be the blues.*
>
> -John Akomfrah, *The Last Angel of History*[66]

In her article "Aliens Who Are of Course Ourselves," Alondra Nelson reminds us of the work of the cultural theorist and novelist Albert Murray, who "once remarked that the mandate of the black intellectual was to provide 'technology' to the black community. By this, Murray did not mean mechanics, new media, or the Internet; rather, he defined technology as those novel analytic approaches he believed necessary to understanding black life "on a higher level of abstraction."[67]

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[65] Gordon, *Ghostly Matters*, 139.
[66] *The Last Angel of History*, dir. John Akomfrah. First Run/Icarus Films, 1996.
[67] Alondra Nelson, "Aliens Who Are of Course Ourselves," *Art Journal* 60/3 (2001): 99.

Taking Murray's lead and Nelson's hand, but allowing for "technology" to also include meanings like mechanics, new media, and the Internet, this zone gathers ways in which African American media (the slave narrative, the blues song, the spiritual, graffiti art, the remix, etc.) have constituted technologies of cultural transmission that function within culturally specific genealogies of coding and abstraction. Early African American media like field hollers, work songs, spirituals, and blues songs are widely recognized as coding devices; they contained, masked, and abstracted levels and layers of meaning that on the surface appeared to be innuendo or jive.[68] Beneath the surface, however, the messages were muddier, more indecipherable, some would say *blacker*.

Four hundred years into the trans-Atlantic slave trade and its descendants (disproportional prison populations, limited access to health services and education, endemic poverty, and pointed government neglect and exploitation), there exist genealogies of African American media in which emergent media inherit the codes of previous generations *and* introduce new ones. These networks of media

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[68] See for example, Angela Davis, *Blues Legacies and Black Feminism: Gertrude "Ma" Rainey, Bessie Smith, and Billie Holiday* (New York: Pantheon Books, 1998).

inheritance develop in such a way that these black technologies, these approaches to understanding black life on a higher level of abstraction, become paradoxically more abstract (more heavily coded) and simultaneously sharper (increasingly higher-resolution) in their transmissions of cultural meaning.

These culturally specific and historically situated African American mechanisms of coding, abstraction, and inheritance apply to media forms as well as media modalities. Instances of cross-modal resonance are often noted, for example, with respect to the work of such celebrated African American painters as Romare Bearden and Aaron Douglas, whose paintings are said to function as music, acting as visual counterparts of jazz and blues forms. The art historian Richard J. Powell observes, for example, that "'blues timbres, downhome onomatopoeia, urban dissonance, and cacophony' can be seen as musical counterparts to the high-affect colors, improvisational patterning, and perspectival distortions of Bearden's art."[69] With regards to the paintings of Douglas, Powell shows how a "formal quality of

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[69] Richard J. Powell, "Art History and Black Memory: Toward a 'Blues Aesthetic,'" in *History and Memory in African-American Culture*, ed. Geneviève Fabre and Robert O'Meally (Oxford: Oxford University Press, 1994), 229.

African-American musical expression—a tendency toward polyphonics and polymetrics—is visually achieved."[70]

In a similar vein, Keith Townsend Obadike explains his desire to identify as a "sound artist" instead of as a "composer" as rooted in the interdisciplinary context in which much African American art and music has developed, observing that, "there is always sonic information to be gleaned from the performance and object-based work of [African American visual] artists."[71] Likewise, Michelle-Lee White has identified what she calls "audio resonance in visual imagery" in the cultural productions of the African diaspora.[72]

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[70] Ibid., 237. Here Powell also refers to the comments made by a visitor in reference to Douglas's paintings:

> The blending was close, the effect rich and full, the passionate, dramatic melody (with gradations of tone which sharps and flats are inadequate to express…) now and then rising in a rush of sound into the harmony of some strange, chromatic, accidental chord. Individual voices were distinguished… all feeling, as if without knowledge or intent, for that vibrating sense which attests perfect harmony, or for that unjarring flow of perfect unison;… some were singing antiphonally,… using indifferently and irrelevantly harmonies of the 3rd, 5th, or 6th, producing odd accidental concords of sound, strange chromatic groups of semitones, and irregular intervals.

[71] Keith Townsend Obadike, "What's in a Name? Seeing Sound Art in Black Visual Traditions," *Art Journal* 60/4 (2001): 4-5.

[72] See Michelle-Lee White, "Afrotech and Outer Spaces," *Art Journal* 60/3 (2001): 90-91.

Add to this complexity of media structuring (memory-coding, meaning-coding) an "aesthetics of multidominance" that has featured prominently in the cross-modal, interdisciplinary expressions of this diaspora.[73] George E. Lewis characterizes this aesthetics as manifesting "extreme" and "simultaneous" multiplicities (of voice, color, patterning, perspective, etc.), and shows how such an aesthetic operates as an oppositional strategy within Eurological cultural traditions and Eurocentric systems of power and privilege. An aesthetics of multidominance can be traced within individual works, genres, and creative approaches; it can also be located within the cross-modal resonances of media forms that contain and couch "extreme and simultaneous" multiplicities of media languages and modalities.

I use the term "polyvalent" to describe media in which there exist extreme and simultaneous multiplicities; these include mechanisms of abstraction, coding, structuring, inheritance, and media language and modality. The term easily applies to Lynch's *Invisible*, a richly variegated mulatto of media forms and platforms, memory containers, and cultural

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[73] See George E. Lewis, "Too Many Notes: Computers, Complexity, and Culture in 'Voyager,'" *Leonardo Music Journal* 10 (2000): 33-39. Lewis builds his discussion on the aesthetics of multidominance by drawing on the work of such theorists and innovators as Robert Farris Thompson and Olly Wilson.

meaning transmitters. For example, there exists a "hidden" textual narrative backdrop to *Invisible*, a sci-fi story in which two time-travelers go to the different sites that Lynch investigates in the work. These time-travelers provide the multiplicity of perspective that Lynch then uses to frame the various audio and video components. This secret text does not ever appear in the public manifestations of *Invisible*, but is instead used as a processing device that allows Lynch to develop the various story lines and points of view that inform the project. For example, "Episode 03" describes a complex of scenes in which Laura Nelson is taken from her cell in a courthouse to the site of her lynching, and in which Lynch's sci-fi characters travel to the bridge where Nelson's body hangs. The audio and video components—an elaborate composite of images and sounds—describe what the two time-travelers and Laura Nelson see and hear. In Lynch's conception, the audience—privy to each perspective but not privy to the sci-fi back story of *Invisible*—is "transported" simultaneously to each place, at once inhabiting the bodies of multiple social actors. The audience "becomes" the character standing on the bridge looking down, becomes the character standing at the foot of the riverbed looking up, becomes suspended flesh.

What is also significant about the secret text is that Lynch does not treat it as text *per se*, but, in my interpretation, as digital video: she zooms in and out of the text; she focuses and defocuses its component parts; she flips-through, fast-forwards, and rewinds it. She explains: "[The text] is multi-layered. Zoom out: there is the meta-project and time travel meta-narrative of [the characters who build] their stories out of traces and artifacts. Zoom in: we are in the woods along a riverbed staring at a spider's web pulling the focus ring of a digital video camera."[74]

Invisible is not unique within traditions of African American polyvalent media production in which cultural meanings are coded, inscribed, and transmitted along complex matrices that make it impossible to extricate them, but that simultaneously enable memories and histories to emerge that are otherwise too complex to exist as mere representation. These polyvalent media communicate meanings that evade categorization within conventional semiotic and syntactic systems; they are much too haunted for that.

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[74] Kara Lynch, "episode 03—meet me in Okemah," *Xcp: Streetnotes* (Spring 2005), http://www.xcp.bfn.org/lynch2.html

6.11 Zone 2: Water

> *Water flows and laps and pools, and in the flowing it makes a sound–the sound of water. The sound—. Music. The sound of music is without language or the sense of language, yet it is not without sense. In this way, there is also a form of language that is without linguistic sense—a form of language without sense that is not nonsense and thus carries sense—the sense of music, or the sound of water. […] These sounds have meaning and sense, yet there are without linguistic sense. So there is an undercurrent in language of meaning and sense that is not linguistic sense. It is the sound of water, falling. It is the sound of language.*
>
> -Sherry Brennan, "On the Sound of Water"[75]

It is also the sound of memory.

At the outset of John Akomfrah's 1996 sci-fi documentary on black music, *The Last Angel of History*, the narrator explains that, "the first touch with science fiction came when Africans began playing drums to cover distance. Water carried the sound of the drums, and

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[75] Sherry Brennan, "On the Sound of Water: Amiri Baraka's 'Black Art,'" *African American Review* 37/2-3 (2003): 299.

sound covered the distance between the old and the new world."[76] This zone contains ways in which water—which features extensively in *Invisible* and in African American stories of cultural haunting—functions as an information carrier, a medium, a storage device.

During a visit with Lynch at her home in Woodridge, New York, the mapmaker's first question was: "How did you end up here?" Her reply: "I liked the river."

Invisible is filled to the brim with images and sounds of water, and it exhibits the special properties of water as a haunted medium. Water is ever-present in "Episode 03: Meet Me in Okemah," as the site of the lynching of Laura Nelson and L.W. was the North Canadian river. Water carries even more valence, though, in "Episode 12: 9th Ward," which takes place in the half-submerged city of New Orleans. "If there is any element that is guiding the work," Lynch tells the mapmaker, "it's water."

In "Study 01," one of the audio-video components of "Episode 12: 9th Ward," water is that permeable membrane that connects this

[76] *The Last Angel of History*, dir. John Akomfrah.

world to the next one.[77] Lynch shot the video portion of "Study 01" at the Neversink river in Woodridge, but the water in it is meant to evoke New Orleans: it is murky, greenish-brown, swamp-like, rushing—the river had flooded earlier that year. In the video, a large white cross, a found object, floats innocuously on the surface of the water. It reads "35 ACRES." The cross is a real-estate marker, but it evokes the slogan "40 acres and a mule," the promise of financial security to freed slaves on which, however minimal, the U.S. government famously reneged. The slogan is written in red and blue, and the cross is white. This makes it difficult not to read the cross as a symbol of death, specifically the death of the dream of reparation. After all, the contemporary real-estate economy and the historical slave trade are not so different in the ways that they parcel out property according to race.

Another object, a white shirt inserted into the scene by Lynch, floats near the cross. A large flock of black birds flies overhead, their increasingly present calls merging with the growing chorus of the black hymn "Good News" which loops in the background. All the while, water

[77] I use the term "audio-video" instead of "audio-visual" to denote the special case of *Invisible* in which the same audio and video tracks are sometimes exhibited as combined media and other times as separate components.

sips and laps away at the edges of the visual and the aural field. As the water approaches the listener and the viewer, so too does the sound of an ambulance, which soon becomes uncomfortably close. When this sound suddenly disappears, it continues to grow inside the listener, like the nagging of a phantom limb. This ghostly crescendo is interrupted by the sound of two gunshots that abruptly punctuate the scene.

When Lynch first exhibited "Study 01," she screened the video on a thirteen-inch monitor placed on the floor, screen facing upwards.[78] Over the monitor she laid a piece of cloth, a shroud with a hole cut in it, which visitors could peer into. Next to the monitor she put a bowl of water, "an offering." During the exhibition, the soundtrack and the video were not synced: rather, Lynch multiplied the sound in the space by projecting it from multiple speakers, giving visitors the impression that they were being immersed. But an immersion in what?

"Study 01" was inspired by the events surrounding the decimation of New Orleans by Hurricane Katrina, and the subsequent abandonment and decimation of black communities in New Orleans

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[78] This exhibition of "Study 01" took place in October 2005 in the Harold Johnson Library Gallery at Hampshire College in Amherst, Massachusetts.

by the U.S. government. Lynch did not follow this news on television, but only on the radio and through word-of-mouth. Her knowledge of these events was therefore sonically transmitted, and her understanding of them consequently shaped by an ethereal panoply of aural impressions. One news segment featured a well-known activist who pleaded with government officials to remove the body of a dead black man that had been left behind for days in the commotion. The activist then spoke to the fact that, while the mainstream news media was eager to broadcast stories about black people looting stores in the area, they willfully omitted stories of white vigilantes who had traveled to New Orleans to harass the black population left behind there. Lynch recalls:

> There was a question about confusion as to who was there to help. Was the national guard there to help? When those vigilante groups came in, could you recognize them as being national guard, or police, or good ol' boys coming in to harass black people? There was a question as to whether there were people who died from gunshots from these vigilantes. The gunshot [in "Study 01"] was really important to me. But there needed to be something that led up to it. *Something that you couldn't entirely understand.* This *waiting*. And the birds are birds passing overhead. They're these really small black birds that hang out and just take over a tree. They just sit there and squawk. It just sounds really threatening. There was something about that. The body left for dead and these birds of prey.

The lurking presence of water in *Invisible* is neither fortuitous nor isolated. In *Invisible*, as in other African American stories of cultural haunting, long-submerged coffers of memory invariably surface from the water, bringing with them a renewed understanding of "what is down there."[79] In these stories, water invariably holds special meaning: it appears as a site of redemption, of emancipation, of escape, of crossing over; it is the symbolic River Jordan, the way of the wanderer, the path to the Promised Land; it the sacred site of baptism; it is also the burial ground of African American slaves and their descendants; it is a place of imminent threat. In New Orleans, water was effectively used as a weapon against the black population—a fact that sheds new light on Langston Hughes's long-ago memories:

> I've known rivers:
> I've known rivers ancient as the world and older than the
> flow of human blood in human veins.
>
> My soul has grown deep like the rivers.
>
> I bathed in the Euphrates when dawns were young.
> I built my hut near the Congo and it lulled me to sleep.
> I looked upon the Nile and raised the pyramids above it.
> I heard the singing of the Mississippi when Abe Lincoln went
> down to New Orleans, and I've seen its muddy bosom turn
> all golden in the sunset.

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[79] Toni Morrison, 1987. *Beloved*, 2nd edn. (New York: Penguin, 2000), 324.

> I've known rivers:
> Ancient, dusky rivers.
>
> My soul has grown deep like the rivers. [80]

In African American stories of cultural haunting, water functions as the connective tissue, the common blood, between one world and another. In Toni Morrison's *Beloved*, the ghost emerges from the river and returns to it upon departing the living world: "By and by all trace is gone, and what is forgotten is not only the footprints but the water too and what is down there."[81] In Octavia Butler's *Kindred*, the black protagonist, having traveled through space and time for the first time, finds herself at the edge of a riverbank sucking the water out of her white ancestor's body, and thereby inserting life back into it.[82] In *At the Bottom of the River*, Jamaica Kincaid describes a stream that, "flowing perilously," "falls over a ledge with a roar, a loudness that is more than the opposite of complete silence."[83]

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[80] Langston Hughes, "The Negro Speaks of Rivers," in *The Collected Poems of Langston Hughes*, ed. Arnold Rampersad and David Roessel (New York: Alfred A. Knopf), 23.
[81] Morrison, *Beloved*, 324.
[82] See Octavia E. Butler, *Kindred* (Garden City, New York: Doubleday, 1979).
[83] Jamaica Kincaid, *At the Bottom of the River* (New York: Farrar, Straus, Giroux, 1983), 62.

How does water store and transmit the collective memories of a haunted community? How does collective memory get filtered, diluted, diffused, and refracted in water? How does collective memory travel through water, and where does it go? Does it flow into the blood?

6.12 Zone 3: Blood

> *But who comes back from our latched cities of falsehood*
> *to warn them that the road to nowhere*
> *is slippery with our blood*
> *to warn them*
> *they need not drink the river to get home*
> *since we have purchased bridges*
> *with our mothers' bloody gold;—*
> *for now we are more than kin*
> *who come to share*
> *not only blood*
> *but the bloodlines of our failures.*

-Audre Lorde, *Coal* [84]

If language can be said to be a virus that comes from outer space and infects the mind, then memory can be said to be a parasite that comes from the water and feeds off the blood.[85] Memory needs blood to survive. Memory inserts itself into the code of blood, growing

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84 Audre Lorde, *Coal* (New York: W.W. Norton & Co., 1976), 13. Quoted in Wright, *Becoming Black*, 170.
85 See William S. Burroughs, *The Electronic Revolution* (Bonn: Expanded Media Editions, 1970).

there until it overcomes the body. When the body expires and blood dries, memory evaporates with it into the environment, becoming "blood on the leaves and blood at the root."[86] When blood memory evaporates, it awaits new bodies to inhabit.

Does the manner of death of a person affect the manner in which his or her blood memory is redistributed into the environment? How did the lynching of Laura Nelson affect the redistribution of her blood memory? Langston Hughes speaks of rivers as "ancient as the world/and older than the flow of human blood in human veins." Where did blood memory come from? Did it come from ancient rivers?

Traditional histories are concerned with the search of a common memory; haunted histories are in search of a blood memory.

> **Mapmaker:** *In recent criticism or theory on ideas of memory, the thing that comes up so often is Pierre Nora's idea of* sites de mémoire *as opposed* lieux de mémoire*—sites of memory as opposed to environments of memory.*[87] *But, if memory is*

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[86] From Abel Meeropol's lyrics to the song "Strange Fruit," originally published as a poem, "Bitter Fruit." Abel Meeropol, "Bitter Fruit," *The New York Teacher* (January 1937): 17.
[87] See Pierre Nora, "Between Memory and History: *Les lieux de mémoire*," trans. March Roudebush, in *History and Memory in African-*

a site, if it's a point, you cannot really access it. A point doesn't really exist, and the closer you get to a point the more it recedes into some kind of inaccessible space, into some kind of a black hole. So the closer you get to a remembered idea the more absent it becomes…

Lynch: Isn't it that what memory is? The process of not getting there…

Mapmaker: *That's the thing…people talk about these sites of memory, but what about the stuff of memory? Let's say that there's memory in your blood. There is coding in the blood, and there is information in the blood, there is history in the blood, there is genealogy in the blood. Bloodlines are like memory lines. Even if you don't know your genealogy, it's in you. Lines don't really exist either, but they're where multiple points meet…*

Lynch: I also think of collective memory. Like you showing me that article about Amiri Baraka's work. I'm familiar with Baraka and his work. I don't necessarily think of him as a reference, I've never met him, but there are these instances that tie us to the same place, the same memory. Why should we share it? But we do. And I do think that's something that black culture acknowledges. Synchronicity. I don't have to know George Lewis to have some common reference points that we're riffing off of, or maybe even come to the same place. I'd never met Saidiya Hartman. I'd heard her name, I'd seen a couple of articles, but I didn't meet her until her recently. But when I did, I thought, "Well here we are, doing the same thing." And that can be a product of upbringing, but there's also another kind of… like you're programmed or something…

Mapmaker: *Also there is actually a physical thing that is memory, right? It occurs in our brain, a physical process that happens. There's a physical place of memory, but it's obviously* not *a place, you can't contain that place. But*

American Culture, ed. Geneviève Fabre and Robert O'Meally (Oxford: Oxford University Press, 1994): 284-300.

there's also a physical thing that is collective memory, which is the memory that is yours but not yours, not yours per se*. For example birds have this collective memory—they* remember *to fly somewhere. It isn't a physical urge, it's actually information that's stored in their brain cells, or their blood… stored in bird-body. There is the actuality of collective memory, and in the case of those who don't know who their ancestors are, the collective memory can be distributed in ways that are different from those of a top-down genealogy. And that also plays into the idea of the multiplicity of perspective, because one might be able to access the memories of someone whose actual blood one doesn't share, but whose experiences were filtered through this same distribution network…*

Lynch: I'm not so interested in origin stories. When Saidiya Hartman talks about going to West Africa and what she's looking for, she's looking for the route and the traces—not necessarily where she came from, but wanting to track the movement of peoples.[88] And that's just like being obsessed with the middle passage, but she's okay with hovering, which really is where I find myself…

One of the most haunting sections of *Invisible* is an audio-video component of "Episode 12: 9th Ward" called "strangemissotis," in which Lynch overlays two well-known jazz songs about lynching: "Strange Fruit," as sung by Billie Holiday, and "Miss Otis Regrets," as sung by Ella Fitzgerald. She combines these songs such that their lyrics overlap thus:

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[88] See Hartman, *Lose Your Mother*.

Miss Otis regrets, she's unable to lunch today, madam,
Southern trees bear a strange fruit,
Miss Otis regrets, she's unable to lunch today.
She is sorry to be delayed,
Blood on the leaves and blood at the root,
But last evening down in Lover's Lane she strayed, madam,
Black bodies swinging in the southern breeze,
Miss Otis regrets, she's unable to lunch today.
Strange fruit hanging from the poplar trees.
When she woke up and found that her dream of love was gone, madam,
She ran to the man who had led her so far astray,
Pastoral scene of the gallant south,
And from under her velvet gown,
The bulging eyes and the twisted mouth,
She drew a gun and shot her love down, madam,
Scent of magnolia sweet and fresh,
Miss Otis regrets, she's unable to lunch today.
Then the sudden smell of burning flesh.
When the mob came and got her and dragged her from the jail, madam,
Here is a fruit for the crows to pluck,
They strung her upon the old willow across the way,
For the rain to gather, for the wind to suck,
And the moment before she died,
She lifted up her lovely head and cried, madam…
For the sun to rot, for the trees to drop,
Miss Otis regrets, she's unable to lunch today.
Here is a strange and bitter crop.
Miss Otis regrets, she's unable to lunch today.

Figure 6.10: Kara Lynch's setting of "Strange Fruit" and "Miss Otis Regrets" in "strangemissotis." Adapted from Kara Lynch, 2005. Courtesy of Kara Lynch.

In "strangemissotis," Holiday and Fitzgerald—towering figures generally thought to occupy opposing poles of an imagined "mainstream" social spectrum—are heard as one voice, a manifestation of Lynch's idea that:

> the everyday tension of Stax v. Motown […] propels culture, history and memory for Black people in the Americas. You cannot have one without the other. Denmark Vesey necessitates Frederick Douglas and vice

> versa. The Underground Railroad stays on track in dialog with maroon communities. Meanwhile each form lives within a construct of captivity and struggle.[89]

In its merged state, the connected-yet-discontinuous voice of Holiday-Fitzgerald reveals a lineage of blood memory that confounds such constructed binaries as "Stax vs. Motown" and "Vesey vs. Douglas," and that raises the question of how memory is stored in the blood and revealed through the productions of the body. In collapsing the time and space between Holiday and Fitzgerald, Lynch implicitly collapses their bodies, directing their virtual blood flow into one another's veins. In this convergence of bodies, a new body appears. An apparition. A haunting.

6.13 Zone 4: Bodies

> *Invisible bodies, no doubt by definition, can be done away with much more easily than visible ones. Since… ghosts… and the like take up no physical space in our empirical world, the liquidation of them involves no bloodletting, leaves no corpses, and calls for no official inquiry.*
>
> -*William Lafleur*, "Hungry Ghosts and Hungry People"[90]

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[89] Lynch, "episode 03—meet me in Okemah."
[90] William LaFleur, "Hungry Ghosts and Hungry People: Somaticity and Rationality in Medieval Japan," in *Fragments for a History of the Human*

Getting rid of ghosts might not involve bloodletting, but creating them surely does.

In creating *Invisible*, Lynch redistributes her own blood memory into multiple networks, mapping it out onto the lived environment and redirecting it into her audience's veins in order to enable a "transformative recognition" of other—living and dead—black bodies.[91] As the vehicle through which the haunted matter of *Invisible* emerges, Lynch's own body becomes, at times, a ghostly or bloodless medium. One of the central methodologies Lynch employs in *Invisible* is *détournement*, the turning-around of popular forms or conventions. In *Invisible*, a *détournement* of social, cultural, and historical forms occurs in and through the body. Lynch writes, "it is the repositioning that happens when you run ideas, images, etc. through your body that is powerful. Detournement […] a working-through of lived experience coupled with political consciousness and a commitment to collective engagement."[92]

Body, Part One, ed. Michel Fehrer, Ramona Naddaff, and Nadia Tazi (New York: Urzone), 271. Quoted in Gordon, *Ghostly Matters*, 143.
[91] Gordon, *Ghostly Matters*, 8.
[92] Lynch, "episode 03—meet me in Okemah."

For Lynch, *Invisible* is ultimately a philosophical question about the body. She says, "If there's a conception of reason, and reason is considered to be 'of the mind,' a [product of the mind's] coming-into-consciousness, what happens when you add the body into the equation? Does that then become irrationality?"

Lynch possesses a love-hate relationship with G.W.F. Hegel, the German idealist whose concept of a master/slave dialectic uncritically positions the black body as the Other which, Lynch observes, "stands-in for, or dies for, this Self that gets to be a subject," but in whose philosophy the black body nevertheless remains unseen.[93] She says:

> In this philosophical discussion, black bodies are invisible. Hegel talks about it as though it's a theory, not a real person's body. Meanwhile you have this fight for liberation in Haiti, and Hegel's thinking about it in terms of "you fight until the death" to achieve consciousness—that is the struggle of "becoming." But those black bodies are totally invisible in that discussion. I'm unwilling to be disciplined about staying in the philosophical realm. What does it mean that Laura Nelson and her son are strung up on a bridge? What does it mean that there's an audience and that there's a photograph? How is Laura Nelson a threat? How does that happen? There's part of me that's just

[93] See G.W.F. Hegel, 1807. *The Phenomenology of Spirit*, trans. A.V. Miller (Oxford: Clarendon Press, 1977).

> unwilling *not* to see her. I think there are all kinds of responses to an image like that—of this young man and this 30-something woman hanging over a bridge—[an image] that's translated over time. But even if your response is horror, that doesn't mean that you're *seeing* them.

The most potent type of invisibility that Lynch confronts in *Invisible* is what she calls the "conspicuous invisibility" of black bodies. This confrontation occurs, in part, through Lynch's reconfiguration of these black bodies in relation to other bodies in space. Although the project is propelled by a narrative constructed using popular sci-fi idioms, the difference between *Invisible* and most sci-fi is as vast as the gulf between literary fiction and historical fact. The installational aspect of *Invisible* is central to this difference. While sci-fi literature can conjure the most fantastical travels through time and space, it still typically exists as words wedded to a page, which a reader, wedded to real space, must typically follow in a prescribed fashion. Conversely, in exhibitions of *Invisible*, a secret sci-fi narrative is translated and projected onto an existing environment which the user must navigate without any active guidance on the part of the author. This new space straddles the line between the real and the immaterial, providing an altogether different kind of cultural experience: the kind that converges with, and becomes indistinguishable from, lived experience.

Siegfried Kracaeur has written that, "Spatial images are the dreams of society. When a spatial image is deciphered, the basis of social reality is revealed."[94] When the interface with a work of art *is* space, the user fulfils the burden of lived experience, bringing to the table a personal and social history of how to navigate through and negotiate space. In affording the user/traveler this genre of experience, *Invisible* also provides a critical framework that reclaims the lost value of lived experience, historically considered "irrational" or trivial and therefore until recently located outside the scope of Western philosophy. Like the slave narrative and the blues song, *Invisible* stresses the point that the only accurate expression of history belongs to lived history.[95]

If spatial images are the dream of society, then interactions with spatial images speak volumes about how social actors see themselves fitting into that dream. In regard to *Invisible*, Lynch claims that not

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[94] Siegfried Kracaeur, "On Employment Agencies: The Construction of a Space," in *Rethinking Architecture: A Reader in Cultural Theory*, ed. Neal Leach (London: Routledge, 1997), 60.
[95] In a similar vein, George E. Lewis speaks to the centrality of lived experience within Afrological modes of improvisation. See Lewis, "Too Many Notes," 237.

interacting with the work is as valid as any other kind of interaction: when a user/traveler comes into contact with *Invisible* but actively, or even unconsciously, ignores the work, such a response can be seen as an extension of national history in which institutional slavery has produced a systematic, "hysterical blindness" towards African Americans.[96] A denied interaction with *Invisible* also reveals the fact that African Americans' otherness has resulted in multiple, coextensive spaces that make up "America."[97] Only some of these spaces are accessible or visible to the majority of "Americans." Others can only be made visible through a critical interaction that compels the "inner eyes" to shed light, however momentarily, upon them. When such a critical interaction takes place, it occurs within the realm of inconsistency, discontinuity, rupture, and slippage, and so its effects are literally immeasurable.

Why, then, do artists like Kara Lynch create sites that enable such

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[96] Laura Kipnis, "Feminism: The Political Conscience of Postmodernism?" *Social Text* 21 (1989): 158. Kipnis writes, "Visibility is a complex system of permission and prohibition, of presence and absence, punctuated alternately by apparitions and hysterical blindness" (158). Quoted in Gordon, *Ghostly Matters*, 15.

[97] For a discussion of these racially differentiated Americas, see *Sites of Memory: Perspectives on Architecture and Race*, ed. Craig Evan Barton (New York: Princeton Architecture Press, 2001).

tenuous and yet potentially disruptive interactions, if not for the sake of wearing down upon dominant constructions of space to the point of breaking? How do they achieve this, if not by using powers that are essentially magical in that they transform and transfigure not only the spatial productions of society, but also the dreams of society?

A critical engagement with *Invisible* entails a kind of historical experience structured around the barely there productions of everyday life as they emerge in relation to social and national histories. During such a critical engagement, the user/traveler, mirroring the narrative structure of the work, is simultaneously propelled forward and backward, suspended in a "retrofuture" present. In this suspended state, the user/traveler's understanding of his or her role in the dreams of society is forever altered to further reflect the depths of this social dream, and the endless possibility of nightmares within it.

6.14 The Boundary of the Map

> *The ghost or the apparition is one form by which something lost, or barely visible, or seemingly not there to our supposedly well-trained eyes, makes itself known or apparent to us, in its own way, of course. The way of the ghost is haunting, and haunting is a very particular way of*

> *knowing what has happened or is happening. Being haunted draws us affectively, sometimes against our will and always a bit magically, into the structure of a feeling of a reality we come to experience, not as cold knowledge, but as transformative recognition.*

-Avery Gordon, *Ghostly Matters*[98]

Like the ghost in Toni Morrison's *Beloved*, Lynch's *Invisible* is a kind of haunting, and, it is itself haunted—a presence marked by loss and absence. What happens when a body that is simultaneously haunted and haunting is disappeared? Does its disappearance enable a particular kind of transformative recognition to occur, one that extends beyond normal or even critical acts of perception? Do the inner eyes of the user/traveler become inner ears, able to receive, filter, and reflect meanings and memories far past the point of human/historical recovery?

In recounting the story of *Invisible*, Lynch often notes that many who have encountered the work seem to notice it more fully in its absence. When the literal and figurative music of *Invisible* is absented, its polymetric rhythms and polyphonic melodies removed from the environment, a haunting gap is left behind. As a repository of lost

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[98] Gordon, *Ghostly Matters*, 8.

memories and a translation of these memories into lived space, *Invisible*, a music that is the music of history, is most audible when it is no longer there.

CHAPTER SEVEN

CONCLUSION

This dissertation has been, on one level, a historical project whose goal is to situate sound installation art practices within multiple historical contexts. To date there are no written histories of sound installation art. This dissertation suggests that such a history can emerge as a network of "webbed connections" between diverse networks of artists, practices, and concerns. On another level, this dissertation has been a critical-theoretical project. The central question of this project is, "how are concepts of space and place socially, culturally, and politically construed, and how do spatially-organized sound works reflect and resist these different constructions?" The preceding chapters address this question through a number of critical lenses. These range from examining postwar conceptions of "acoustic space" to mapping the ways in which a contemporary artist's practice emerges in relation to individual and collective experiences of "lived space." In between, different chapters have addressed such extended spatial imaginings and expressions as the social production of space, everyday spaces,

embodied spaces, liminal spaces, non-places, and gendered and racialized spaces, as these inform and inspire spatially-organized sound works.

This concluding chapter revisits some of the claims made in preceding chapters to show how these support the historical and critical-theoretical projects at its core. In doing so, it reasserts the larger aim of this dissertation, which is to contribute critically to sonic arts discourses, and propose a sonic "ontopology": a study of sound as it functions in relation to ontologies of space and place.

The historical project that shaped this dissertation was born out of necessity. While the general subject of sound art has gained credence in scholarly discourses in the last twenty years, the particular subject of sound installation art has received minimal attention. Existing histories of sound art have tended to favor performance and recording practices over installation practices. As stated in the introductory chapter, it is perhaps due to its liminal position between music and visual arts that an in-depth examination of sound installation has been neglected by musicologists and art historians alike. The result of this neglect is that there is a striking disjuncture between our lack of scholarly

understanding of sound installation art and its significant presence across multiple artworlds.

Most of the existing literature on sound installation art exists in the form of disparate exhibit catalogues. While these provide valuable information on individual artists and works, they rarely situate these within wider historical contexts. My research attempts to give shape to such a history; in doing so, it finds confluence with—and diverges in important ways from—existing discourses and histories of sound art. For example, my writing does not locate the origins of sound installation art in the noise-art practices of the Futurists, who are widely considered to be the originators of "sound art." Instead, it examines the roots of sound installation art in postwar conceptions of acoustic space, as these were articulated in spatial music composition, media theory, and architecture. Thus, this history does not locate the beginnings of sound installation art in any one work or artist, but rather in a network of ideas and practices that helped to bring the spatial imagination to the forefront of Western art and music in the mid 20th-century.

In existing sonic arts discourses, the American percussionist-turned-sound-artist Max Neuhaus is widely credited with having coined

the term "sound installation art" in the late 1960s. However, his concept is rarely situated within any historical context. My writing examines Neuhaus's idea of sound installation art as an "everyday" and "social" art, and situates Neuhaus's concept within an earlier history of 20th-century projects that sought to reinsert the everyday within Western art and philosophy. Neuhaus defines sound installation art as works that "have no beginning or end," and in which sounds are "placed in space rather than in time." Conversely, this dissertation broadly defines sound installations as "spatially-organized sound works." It includes in its scope a wide set of practices that range from well-known traditions like spatial music composition to more obscure traditions like sound performance-sculpture.

Part of the aim of the historical project is to tease out histories of sound installation art—an essentially interdisciplinary art form—that are marginalized within discourses that continue to perpetuate artificial disciplinary boundaries. For example, Chapter Four, CONCEPTUAL SPACES, connects the practices of Fluxus artists in the late 1950s and 1960s to the practices of Bay Area conceptual artists a decade later. In doing so, it theorizes the historical and aesthetic connections between

musical performance and sound sculpture, which generally considered to be mutually exclusive.

This dissertation also challenges widely-accepted definitions and concepts within existing sound art histories. For example, it challenges the idea that the Event, as introduced by the Fluxus artist George Brecht, was a "performance technique." Instead, it claims that the Event was a perceptual process that framed actions and objects as interchangeable under the common umbrella of chance. It shows how the Event was adopted into Fluxus, where it became synonymous with Action Music, an under-recognized musical counterpart to Action Painting. Action Music is almost singularly celebrated as a radical expression that broke with conventions in the Western musical avant-garde, positing a rear-garde sensibility characterized by meaninglessness and a minimalist aesthetic. Chapter Four problematizes Action Music as a non-symbolic, non-representational expression. Drawing on the work of such feminist scholars as Kathy O'Dell, it shows how this limited definition of Action Music came at the expense of female artists and artists of color, whose bodies were almost invariably interpreted as symbolic and expressive in carrying out Action works.

In a similar vein, Chapter Four asserts that the Event gave rise to new sonic expressions like Action Music and sound performance-sculpture in the mid-century. Here again this history breaks with existing accounts of sound art. For example, in his recently published *Sound Art: Beyond Music, Between Categories*, the historian and composer Alan Licht argues that "a 1970 exhibit at the Museum of Conceptual Art in San Francisco, organized by its founder Tom Marioni called *Sound Sculpture Is* [sic] was misleading—it featured mostly conceptual performance pieces like pissing in a bucket, melting ice, and a phone ringing off the hook."[1] By contrast, this chapter relates the sound works of the Bay Area conceptual artists associated with the Museum of Conceptual Art to earlier Fluxus practices, and theorizes them as "performance-sculptures": works in which actions with objects were carried out in order to "transform space." These works ranged in scope from Marioni's "One Second Sculpture" to Terry Fox's "Action for a Tower Room." For the former, Marioni released a tightly-coiled piece of measuring tape into the air. It fell to the ground in a straight line, making a loud noise as it landed. For the latter, a ritualistsic, days-long work, Fox

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[1] Alan Licht, *Sound Art: Beyond Music, Between Categories* (New York: Rizzoli International Publications, 2007), 203. The 1970 MOCA exhibited curated by Marioni was called *Sound Sculpture As*.

performed sound actions with a tamboura, creating a “sculptural” sound that was intended transform the space in which it developed.

In addition to developing an alternative and critical history of sound installation art, this dissertation uses an interdisciplinary methodology of critical spatial analysis and critical studies in music to examine conceptions of space and place as these have informed sound installation practices during the last fifty years. The introductory chapter, SITUATED SPACES, defines “space” as the multiple, dynamic, and hybrid settings of production, and “place” as the moment-to-moment relationships between the different elements of a network. This chapter distinguishes between space and place in the following way:

> Place focuses the particular, the situational and the momentary, and is therefore always in flux and subject to change. Space, on the other hand, is used to describe more general and sedentary forms of organization. However, because space and place produce one another, there is an ongoing interplay between the particular and the general, the momentary and the lingering.

The chapters that follow tease out the tensions between space and place as these are articulated in spatially-organized sound works since the late 1950s. In doing so, the arc of this dissertation mimics the

route that sound installation art can be said to have taken in the fifty years since its inception. This route can be described, in general, as moving from "space" to "place," or, from the absolute and the universal to the contingent and the particular.

The first chapter following the introduction problematizes essentialist and universal conceptions of acoustic space in postwar spatial music composition, media theory, and architecture. These conceptions drew upon such reductive binaries as male/female, rational/irrational, and Western/non-Western to formulate an idea of acoustic space as a sensual and chaotic space; this space emerged as a foil to a (perceived) rational and ordered visual space. In drawing upon these binary constructions, postwar conceptions of acoustic space advanced a larger project within Western art music composition: to revive the rational, the logical, and the "objective" in relation to the sounding.

Chapter Two, ACOUSTIC+VISUAL SPACES, asserts that Edgard Varèse's "*Poème électronique*"—an iconic spatial music composition that is typically theorized as a set of disembodied sound geometries—employed these conceptual tropes in its multiple, layered

negotiations of acoustic and visual space. On the one hand, for example, the music embraced a primitive aesthetic (as heard in its shrieks, whines, and moans); this sensibility was mapped out onto the "acoustic" term of the acoustic/visual binary. On the other hand, "*Poème électronique*" attempted to determine the location of "sound objects" within an empty Euclidean space—a space that was conceptually mapped out onto the "visual" term of the acoustic/visual binary.

The terms of Varèse's negotiation (of acoustic and visual space) were much more critical than merely determining the physical location of sounds. Instead, his negotiation communicated larger concerns about music's perceived ability to perform in ways that were thought to be exclusive to visual media. Works like "*Poème électronique*" aimed to confer upon acoustic space qualities that were associated with visual space: legibility, rationality, and definability. In other words, the project to "visualize"—and therefore rationalize and territorialize—sound objects was ultimately carried out in order to put music on equal grounds with other forms of visual culture.

The postwar concept of the map-able sound object has been widely (and in general uncritically) accepted within Western art music traditions. At the same time, alternative and extended conceptions of space were also articulated in the postwar era. These included the idea of space as a social production—an idea explored by such artists and philosophers as the Situationists and Henri Lefebvre. Lefebvre and the Situationists were also linked in their efforts to recover and revive the place of the everyday within Western art and philosophy. When Max Neuhaus proposed the idea of "sound installation art" in the late 1960s, it was as a kind of art that could intersect with audiences' everyday lives and change their relationships to the everyday spaces that they inhabit.

At one time a professional percussionist, Neuhaus was disillusioned by even the most radical efforts within Western art music composition at the time. He felt that these efforts were merely scandalous and not actually effective in changing audiences' experiences of sounds in their daily lives, since they remained committed to concert traditions. In 1967, Neuhaus began to take his audiences on "listening walks," instructing them to listen to the sounds of their daily environments. He claimed that these walks compelled a

"focused listening" that changed audiences' habits of hearing, and that consequently inspired an attachment to the places in which this listening occurred.

Following his *LISTEN* series, Neuhaus created his first sound installation, *Drive-In Music* (1967). It was an unremarkable installation located in an everyday space (the side of a road in Buffalo). Listeners who drove on that road heard combinations of sine tones unexpectedly emanating from their car radios; the organization of these sounds was dependent upon such environmental conditions as humidity and light. Neuhaus intended for *Drive-In Music* and his subsequent works, like *Times Square*—works that audiences could discover while performing everyday activities—to inspire listeners to "claim" the place of the installation as their own.

Chapter Three explores the ways in which the works of Neuhaus and contemporary artists like Heidi Fast and Michael Schumacher deal with concepts of social space and everyday spaces. Subsequent chapters also examine extended and alternative spatial imaginings in sound installations, including sound installations that develop in the very particular places of the human body. Chapter Five, EMBODIED SPACES,

examines sound installations that are designed to be installed *inside* the body. Works like Bernhard Leitner's *HEADSCAPES* and Maryanne Amcher's *Sound Characters (Making the Third Ear)* compel what Leitner describes as a "bodily hearing," and what I theorize as an "embodied listening" and a "situated listening." In describing Leitner's and Amacher's sound works, I undertake an embodied, situated listening that disrupts traditional models of hearing and analysis; this listening develops within a critical (and specifically feminist) framework.

The last chapter introduces the work of two contemporary artists, Anna Friz and Kara Lynch, whose works confront such contested spaces as gendered and racialized spaces. Both Friz and Lynch are interdisciplinary artists whose works develop within such varied traditions as music and sound art, performance art, science fiction, pirate radio, and experimental video art; in addition, both artists are directly engaged with critical traditions like feminist and post-colonial critique. Neither of these artists' sound works have been theorized before; Chapter Six introduces them to show how new constructions of space in contemporary cultures (i.e. "non-places") are critically reflected and resisted by artists working today.

With respect to Friz, this chapter argues that her works enact a critical, feminist radio utopia—a utopia that, unlike preceding radio utopias (Futurist, modernist), recovers rather than maligns the distance and places in radio communications. In contemporary information cultures, a female-coded "space of places" is supplanted by a male-coded "space of flows" (i.e. information flows). Friz's works can be considered feminist in that they reinsert "place" into contemporary cultures characterized by the proliferation of non-places. With respect to Lynch, this chapter shows how an artist's works can wear upon dominant constructions of space (in this context, racialized spaces) to the point of their breaking. It suggests that such works can be considered "magical" in that they transform and transfigure the spatial productions of society and the spatial images of society—what Siegfried Kracaeur called the "dreams of society."

Friz's self-reflexive radio works are centrally concerned with transception (the ability to send and receive information) as a critical paradigm for communication. This dissertation suggests that they inspire a "transceptive listening," whereby the critical listener receives noise and reciprocates meaning. In a similar spirit, it suggests that the "inner eyes" of audiences who encounter Lynch's *Invisible*—those eyes that

are critically tuned to witness such contested realms as the invisibility of blackness—become "inner ears." These "inner ears" are able to receive, filter, and reflect meanings and memories that lie beyond human or historical recovery.

With this final speculation, this dissertation effectively turns back in on itself. While the chapter on ACOUSTIC+VISUAL SPACES suggested that spatial music was an uncritical "visualization" of sound, the chapter on CONTESTED SPACES figures critically transformative acts—like the transformative recognition of blackness—as a kind of "auralization" of lived space (the space of memory and history). This auralization does not malign "acoustic space" for its indefinite or non-linear qualities, but instead celebrates it for allowing complex and contested meanings to emerge.

The discussions that make up this dissertation thus range from the historical to the theoretical, from the critical to the speculative. Together, they form the basis for a sonic ontopology, a study of sound that develops in relation to ontologies of space and place. These ontologies, like their subjects, do not privilege fixed or absolute meanings, but are equally concerned with those meanings that are

unstable and the contingent. This dissertation was inspired by a personal experience of living in a placeless place and a timeless time. This condition propelled a crisis—a loss of a sense of sameness and continuity. With regards to the production of knowledge, such a crisis can be regarded as a critical return to “place”: the re-situation of knowledge within unstable and unfixed, “acoustic” realms.

APPENDIX A

SELECTED SPATIAL SOUND WORKS+ TECHNOLOGIES

Year	Title	Composer	Description of Work
1951	*Potentio-meter d'espace*	Radio-diffusion Française	A device for spatializing sound in performance; sound routed to a four-channel speaker system
	Symphonie pour un homme seul	Pierre Schaeffer, Pierre Henry	A spatial tape music composition projected using the "potentiometer d'espace"
1952	*Williams Mix*	John Cage	Octophonic tape piece, for eight mono tapes, with playback on eight loudspeakers
	Intersection	Morton Feldman	
	Octet	Earle Brown	
	4' 33"	John Cage	"silent piece"
1953	*Music Box*	Robert Rauschen-berg	A wooden box with antique nails driven into it, containing 3 stones. Upon shaking the box, Marcel Duchamp told Rauschenberg, "I think I've heard this song before."
1955	*Spatio-dynamisme*	Pierre Henry	Aleatoric work for multitrack tape; a "music environment" for a cybernetic tour by Nicolas Schoffer in Paris's Parc de St. Cloud
	Déserts	Edgard Varese	First stereophonic radio broadcast

Year	Title	Composer	Description of Work
	Gesang der Jünglinge	Karlheinz Stockhausen	Multitrack piece for quadraphonic playback
1956	*Broadcast*	Robert Rauschen-berg	A painting with 3 radios that viewers could control
1957-1959	*VORTEX*	Jordan Belson, Henry Jacobs	Multimedi sound-and-light environment. For the Morris Planetarium in San Francisco. 13 progrrams featuring works by Karlheinz Stockhausen, Vladimir Ussachevsky, Toru Takemitsu, Luciano Berio, and others. Sound routed through 36-40 speakers using a rotary console
1958	*Poème électronique*	Edgard Varèse	Multimedia work commissioned by the Philips Corporation for the 1958 Brussels World Fair. Audio on sprocketed 35-mm three-track tape; one track was for musical material; other two tracks were for reverb and stereophonic effects. Each track was distributed to 300-450 speakers via an 11-channel sound system. 9 different "sound routes" were programmed
1959	*Drip Music*	George Brecht	"A source of dripping water and a vessel are arranged so that the water falls into the vessel." Second version: "Dripping."
196?	*Mechanical Fluxconcert*	Richard Maxfield	"Microphones are placed in the street, outside windows or hidden among audience and sounds are amplified to the audience via public address system."

Year	Title	Composer	Description of Work
1960	*Kontakte*	Karlheinz Stockhausen	Quadrophonic piece. Used a turntable system with rotating loudspeaker mechanism surrounded by four microphones to create effect of spinning sounds
	Composition 1960 #5	La Monte Young	"Turn a butterfly or any number of butterflies loose in the performance area […]"
	Composition 1960 #7		Instructs holding an open-fifth chord "for a long time"
	Composition 1960 #10		"Draw a straight line and follow it"
1961	*Incidental Music, Part 2*	George Brecht	"Wooden blocks: A single block is placed inside the piano. A block is placed upon this block, then a third upon the second, and so forth, singly, until at least one block falls from the column."
	Box with the Sound of its Own Making	Robert Morris	A walnut box containing a speaker and a 3.5-hour long tape recording of sounds of sawing and hammering recorded during the box's construction
	Compositions 1961	La Monte Young	29 compositions which instruct, "Draw a straight line and follow it"
1962	*Solo for Violin, Viola, or Contrabass*	George Brecht	"polishing"
	String Quartet		"shaking hands"
	3 Piano Pieces		"standing sitting walking"
	Piano Activities	Philip Corner	A composition which instructs the performers to take apart a piano

Year	Title	Composer	Description of Work
	Homage to La Monte Young	George Maciunas	"Erase, scrape or wash away as well as possible any previously drawn line or lines of La Monte Young or any other lines encountered."
1962-on-going	*Dream House*	La Monte Young, Marian Zazeela	Initially the Dream House was conceived of as a space in which musicians could play for 24 hours a day. It was later realized as a sound-and-light environment composed of multiple sets of frequency intervals
	Nothing	Ben Vautier	"Performers do nothing"
	Washroom	Robert Watts	"The local national anthem or other appropriate tune is sung or played in the washroom under the supervision of a uniformed attendant"
	Tape Piece I: Stone Piece	Yoko Ono	"Take the sound of the stone aging"
	Tape Piece II: Room Piece	Yoko Ono	"Take the sound of the room breathing. 1) at dawn 2) in the morning 3) in the afternoon 4) in the evening 5) before dawn. Bottle the smell of the room at the particular hour as well"
1963	*Exposition of Music-Electronic Television*	Nam June Paik	Installation of prepared televisions altered to distort their reception of broadcast transmissions, scattered about the room, on their sides and upside down. At the Galerie Parnass in Wuppertal, Germany
1963-on-going	*Situasies*	Paul Panhuysen	Works which combine many media – images, sounds, light, projection, objects, spaces, machines, etc

Year	Title	Composer	Description of Work
1964	*Drift Studies*	La Monte Young	For two or more ultra-stable, precisely tuned sine waves
1965	*Oracle*	Robert Rauschen-berg, Johan Kluver	An installation of different instruments (water streaming into a bathtub, a car door attached to a typing stand, a window sash, a curved vent) and radios tuned randomly, which the audience could control
1966	*Public Supply*	Max Neuhaus	Neuhaus mixed telephone calls coming into 10 telephones in the studios of WBAI and broadcast these to listeners; callers could turn their radios on for Neuhaus to play with the feedback signals
1967	*City Links #1 22*	Maryanne Amacher	Microphones in different remote environments are linked to a gallery through telephone lines
	Drive-In Music	Max Neuhaus	7 low-powered radio transmitters are installed under trees along a road in Buffalo. Pointing in different directions, the radio signals produce 7 overlapping zones with different sound components. People driving by can hear sounds that vary according to time of day, weather, speed, and direction of travel
1968	*Chamber*	Alvin Lucier	Battery-operated radios, tape recorders, and electronically-powered toys are hidden in paper bags, suitcases, and other small resonant environments. Performers carry these small “rooms” into larger ones.

Year	Title	Composer	Description of Work
	Seriation #1: Lecture	Adrian Piper	30-minute recording in which Piper dials the local time and records the operator's voice announcing what time it is, in 10-second intervals
	Seriation #2: Now		20-minute work in which Piper utters the word "now" in a measured tone at shorter and shorter intervals
	Soundings	Robert Rauschen-berg	A 36-foot long sculpture made up of 3 layers of Plexiglas. The front layer is partially mirroried, and the bottom 2 layers of Plexiglas have images of a wooden chair on them. Lights behind the glass vary in intensity according to the frequency of the sounds in the room
	Rainforest	David Tudor	A sound-score for Merce Cunningham's dance work of the same name, established a means of sound transformations without the use of electronic modulation: the source sounds, when transmitted through the physical materials, are modified by the resonant nodes of those materials. The basic idea was that loudspeakers should have their own unique voice
1969	*Vespers*	Alvin Lucier	Performers with Sondols (handheld pulse wave oscillators) explore the acoustic characteristics of indoor and outdoor spaces
	One Second Sculpture	Tom Marioni	Marioni released measuring tape into the air.

Year	Title	Composer	Description of Work
	Streetwork Streettracks I-II	Adrian Piper	Piper walked slowly around the outer periphery of a block in lower Manhattan, recording whatever occurred; during a performance a week later she walked quickly around the inner periphery of the block for one hour, playing back what she had recorded at twice the speed, thus "compressing time and space"
1970	*Isolation Unit*	Terry Fox, Joseph Beuys	An impromptu performance in the cellar of the Kunst Akademie in Dusseldorf in which Fox and Beuys "connected found objects using acoustic energy"
	I Am Sitting in a Room	Alvin Lucier	Several sentences of recorded speech are simultaneously played back into a room and re-recorded there many times. As the process continues, those sounds common to the original spoken statement and those implied by the structural dimensions of the room are reinforced. The others are gradually eliminated. The space acts as a filter; speech is transformed into pure sound
1970s	*Soundwalks*	World Soundscape Project	Soundwalks originated in the 1970s as a research tool by the World Soundscape Project, a team at Simon Fraser University lead by R. Murray Shafer. The team traveled to various locations, and began each visit with a soundwalk to orient the team.

Year	Title	Composer	Description of Work
1970s-on-going	*Soundwalk-ing*	Hildegard Westerkamp	Westerkamp, a member of the World Soundscape Project, recorded soundwalks and broadcast them on community radio. Her show *Soundwalking* on Vancouver Cooperative Radio explored sound ecology through soundwalks and commentary.
1971	*TV Cello*	Nam June Paik	In collaboration with the cellist Charlotte Moorman. Television sets were stacked to suggest the shape of the cello. As Moorman drew the bow across the television sets, images of her playing, video collages of other cellists, and live images of the performance area were combined
1972	*Automotive*	Laurie Anderson	An audience is seated in a park's gazebo; they are surrounded by cars and trucks that sound their horns as instruments
	Action for a Tower Room	Terry Fox	Fox played the tamboura for 6 hours a day for 3 consecutive days, in order to transform the space he was in, and connect found objects to the architecture
	The Pygmy Gamelan	Paul De Marinis	5-10 small electronic circuits respond to electrical fluctuations in the galaxy by improvising around 5-note phrases
1973	*Rainforest, fourth version*	David Tudor	An environmental work, mixing live sounds of suspended sculptures, found objects, their reflections in an audio system

Year	Title	Composer	Description of Work
1974-1975	*Duets on Ice*	Laurie Anderson	Anderson stood on ice skates embedded in blocks of ice; the duet consisted of her playing her violin, accompanied by the sound of a hidden tape recording. The piece ended when the ice melted
1974-1979	*Cloud Music*	Robert Watts, Bob Diamond, David Behrman	A video camera scans the sky; images are analyzed for changes in light produced by passing clouds. A home-made synthesizer responds musically to the passage of clouds
1974/ 1980s	*Pea Soup*	Nic Collins	A self-stabilizing network of circuitry (originally 3 phase shifters) nudges the pitch of audio feedback to a different resonant frequency every time the feedback starts to build The familiar shriek is replaced with unstable patterns of hollow tones, a site-specific “raga” reflecting the acoustical personality of the room
1974	*Capillary Action*	Terry Fox	An installation of two large clay bowls, one placed above the other, on top of a box. A red cloth drew the water out of the top bowl by capillary action, and slowly emptied it, drop by drop, into the lower bowl. This created a constant water music in the gallery. It took 8 hours for the top bowl to be drawn dry. The bowls were reversed each day for the 4 weeks of the show

Year	Title	Composer	Description of Work
	Drum Brush Lecture	Tom Marioni	Marioni repeatedly struck a paper surface with metal drum brushes, producing an image/record of the sound-action on the paper, which acted as a record and image of the sonic process
1974-1975	*Body Music*	Charle-magne Palestine	A study in the "vocal-physical responses of a species caught in an enclosed room"
1975	*Some Reflective Surfaces*	Adrian Piper	From a performance at the Whitney Museum. A soundtrack combines three voices: the first is Piper relating her experience of working as a disco dancer; the second is Aretha Franklin singing "Respect"; and, a male voice barking out orders on how to dance more gracefully
1976	*Three Columns for America*	Vito Acconci	Three vertical black panels flare up as they rise to different heights, with a table fixed to their bottoms. Chalked onto the black panels are rubbed-out white lines like writing paper. 3 headphones on the table provide the text for the empty blackboards, broadcasting the artist speaking in alternative voices: an "inner" voice of an everyday American and an "exterior" voice of a radio announcer delivering headlines concerning sex scandals
	Timbre	Terry Fox	Fox played a tabletop instrument in an outdoor amphitheater for 5 hours. He

Year	Title	Composer	Description of Work
1977	*The Gangster Sister from Chicago Visits New York*	Vito Acconci	Free-standing walls are painted red, white, and blue, making a room of their own. The walls are "wailing walls"; using quadraphonic tape and a speaker inside each wall. Acconci's voice can be heard drifting between the walls
	Jukebox	Laurie Anderson	An installation consisting of a jukebox, wall pieces containing photos, texts, and scores. The jukebox is programmed to play one of 24 songs of Anderson's when a visitor puts in a quarter and chooses it
	Music on a Long Thin Wire	Alvin Lucier	A 50-foot length of taut wire passes through the poles of a large magnet and is driven by an oscillator; the vibrations of the wire are miked at either end, amplified, and broadcast in stereo. The thin wire is set vibrating 4 times at 4 different frequencies. What results is not the low drone one might expect, but evocative, ethereal chords
	Radio Net	Max Neuhaus	Neuhaus used sound from incoming phone calls as material for automatic mixing; used the national loop used by NPR to process the material. Converted the whole system into a closed loop, "It created a sound-transformation 'box' that was literally 1,500 miles wide by 3,000 miles long.

Year	Title	Composer	Description of Work
	Times Square	Max Neuhaus	A permanent installation on 24 hours a day. Between 45th and 46th on Broadway there is a traffic island covered by a subway ventilator grill about 10m long. Intense, organ-like sounds come from the grill. Sounds are produced by a synthesizer. There is no plaque announcing the work
1978	*Handphone Table*	Laurie Anderson	An undistinguished pine table conceals a playback system of wires connected to nodes under two concave discs inviting the spectator's elbows. The songs at each end of the table are "*Now You in Me Without a Body Move*" and "*I Remember You in My Bones*". First installed at MOMA
	Quartet #1 for Four (Subsequent) Listeners		In a darkened room a diagonal ribbon of light on the floor directs gallery visitors. The words "note" and "tone" are printed on the floor at each end of the room. When a visitor blocks the light, she activates four sounds: a repeated monosyllable, a violin phrase; a woman's voice softly humming; and a sound that is either traffic or surf
	Music For Airports	Brian Eno	Created in 1978 and installed temporarily at the LaGuardia Airport. Sound sculpture created from a few notes and the serial organization of variable tape loops

Year	Title	Composer	Description of Work
1979	*Numbers Runners*	Laurie Anderson	An altered telephone booth. People enter the booth and lift phone of its hook; they listen to a recorded message by Anderson and their own voice on a short delay
	Suono Interno	Terry Fox	3 six-hour performances in the ex-church of Santa Lucia in Bologna, Italy. The church was empty except for rats, bats, and hundreds of pigeons. Two parallel piano wires were stretched the length of the church and attached by eyebolt and turnbuckles at one end of a large wooden door. A hole in the door allowed the public to observe the performance from outside. The door acted as a natural resonator for the 150-foot wires, projecting their sound onto the street. The wires were stroked or plucked with fingers.
	Time Pieces	Max Neuhaus	Acoustic projects designed for public spaces that run intermittently. A sonority integrated with its surroundings begins softly, grows over a period of minutes and suddenly disappears. When it disappears listeners first realize it was there.
1980s	*Snapshots*	Christian Marclay	Photos of urban landscapes in which sonic references are highlighted as they appear in architectural details, signage, and other street elements

Year	Title	Composer	Description of Work
1980-on-going	*Music For Sound-Joined Rooms (Living Sound, Patent Pending)*	Maryanne Amacher	Large-scale multichannel pieces with music and visual sets staged architecturally; the visual elements gave clues to stories discovered in different rooms; creation of an "emergent music laboratory" where instruments and musicians of the future were placed beside metal cases marked Fragile
1980	*Berlin Wall Scored for Sound*	Terry Fox	Fox created an "audible geography" of the structure of the Berlin Wall drawing a "staff line" on a map between East and West Berlin and calculating distance in second; the score is for six acoustic tones in an endless loop, like the wall it is describing
	Monument	Susan Hiller	Visitors are invited to sit in front of photos of memorial plaques and listen to Hiller's voice, which emphasizes the exclusion of women from heroic, public forms of representation
1981	*Landscape Sculpture with Fog Horns*	Bill Fontana	Sound sculpture in which microphones were placed at 8 locations around San Francisco Bay and transmitted live on radio. Acoustical delays were created by distances of mic positions to the Golden Gate Bridge
	Berlin Attic Wire, Beating	Terry Fox	At the Kunstlerhaus Bethanien. Stretched 2 piano wires the length of the attic, using the wooden walls as resonators.

Year	**Title**	**Composer**	**Description of Work**
1982	*Concert For A Frozen Lake*	Rolf Julius	Several loudspeakers play music for a frozen lake. "I hope the lake itself becomes music"
1982-on-going	*Long String Installations*	Paul Panhuysen	Panhuysen, sometimes accompanied by Johan Goedhart, conceived and constructed numerous long string installations for given spatial and time limitations; experimenting with every conceivable method of exciting the strings and amplifying them
1983	*Moving Sound Creatures*	Felix Hess (NL)	An installation of 40 small machines packaged in aluminum boxes that react to the audience and to each other
	Sprechende Kleider	Benoit Maubrey	
1984	*Music for Environmental Sound Diffusion*	Robin Minard	An acoustic "buffer zone" is created inside a passageway connecting office spaces and a concert hall in a Montreal gallery. To achieve a continuous and perfectly uniform sound vacuum Minard placed 10 loudspeakers at equal intervals on the ceiling and 2 beneath the floor, broadcasting static high and low frequency sounds, from tape. Minard called this the "acoustic conditioning" of a space; immersing listeners in a "quasi-static" sound space
	Ton-Raum Tu Berlin	Bernhard Leitner	Permanent installation at the Technische Universitat, Berlin.

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1985	*Metropolis Koln*	Bill Fontana	Sound sculpture/radioplay in Roncalliplatz in Cologne
	Sound on Paper	Alivin Lucier	Sound installation or performance for framed paper, loudspeakers and audio oscillators. Lucier uses paper of different weights and densities framed and mounted on easels. Behind each piece of paper are small loudspeakers which are playing an oscillator wave tuned to 32 rpm. This causes the papers to vibrate sympathetically creating a range of sounds determined by the different kinds of papers
	Audio Herde	Benoît Maubrey	Maubrey is the director of Die Audio Gruppe, a Berlin-based art group that build and perform with electronic clothes that make sounds by interacting with their environment using light sensors, movement sensors and electronic instruments
	Music for Passageways	Robin Minard	Sculptural sound space with 32 pipes in a just-intonation scale; 32 loudspeakers and 2 auto-reverse stereo tape players. The localization of sound in space depends on the resonant frequencies of the tuned pipes. The installation covers a maximum number of frequencies; musical register is spread in space across space.

Year	Title	Composer	Description of Work
1985-2000	*Five More String Quartets*	Phil Niblock	500 frequencies are played in sequence as sine tones in the performers' headphones; they attempt to match these frequencies and 20 simultaneous tones are obtained by multitracking the string quartet 5 times. In addition to the 20 basic tones, wave phenomena create many unpredictable difference tones
1986-1990	*Very Nervous System*	David Rokeby	Video cameras, image processors, computers and synthesizers are used to create an interactive space in which the movement of visitors' bodies create sound and/or music
1986	*Trees*	Terry Allen	Eucalyptus trees on the UCSD campus are covered with lead and wired to speak, sing, or emit other uncanny sounds through hidden speakers. There is a music tree, a literary tree, and a silent tree. Sounds include a Thai band; David Byrne; Navaho chants; Aztec poetry duck calls, the Maines Brothers playing steel guitars; a poem about scabs; and silence
1987	*Maritime Rites*	Alvin Curran	Commissioned by the City of Berlin. A 22-minute concert for 11 ship horns activated by a computer; range of listening was 3 km
	Music from the Center of the Earth		Loudspeakers are placed under the surface of the earth and diffuse composed music

Year	Title	Composer	Description of Work
1987-on-going	*Speaker Constructions*	CHOP-SHOP	Sculptural assemblages of found and scavenged materials housing functional loudspeakers. Each speaker construction is fitted with a distinct sound program that reflects its distant characteristsics
1987	*Instruments to Be Played by the Movement of the Earth*	Terry Fox	**at the Capp Street Project, San Francisco
	Moving Sound Creatures	Felix Hess (NL)	24 small machines with two wheels, a bumper, and mics extended above the machine on a shaft
	Kozebotaru	Felix Hess	An installation of a few hundred small lights, hanging from a ceiling in a darkened space. Differences in air pressure, caused by sound and movements of the public, influence the patterns of lights
	Le Cylindre Sonore	Bernhard Leitner	A permanent sound installation in the Parc de la Villette, Paris. The inner diameter of the double cylinder is 10 m, the height 5 m. Behind the 8 perforated concrete elements 24 loudspeakers have been mounted. "Statically drifting, room-filling sound-tissues picked up by the wind to alter their movements… echoed by birds which populate the densely grown bamboo thicket"

Year	Title	Composer	Description of Work
1988	*Radical Arcs*	Ron Kuivila	An installation made up of 98 coordinated "singing arcs", the first completely electronic musical instrument (a high voltage oscillator whose pitch could be tuned). In Radial Arcs, a large collection of singing arcs are distributed throughout the exhibition space. A microcomputer coordinates the timing and pitch of the arcs, generating complex spatial patterns of both light and sound
	Soundwalls	Robin Minard	Sculptural sound space with 3 vertical resonators, 12 integrated sound transducers, and 3 auto-reverse tape players. Timbre, register, and acoustics contribute to the composition of an environmental music conceived for the articulation of space
	Long Aeolian Piano	Gordon Monahan	An old upright piano is placed outdoors in a field, in a public park, on top of a mountain. Long wires are strung through the piano soundboard and anchored to peg boards at the other end of the strings. The strings are oriented at 90 degrees to the prevailing wind, so that Aeolian tones are excited in the strings.
1989	*Fireflies Alight on the Abacus of Al-Farabi*	Paul De Marinis	A 60-foot long "music wire" with loops of monofilament is stretched in a dark room and illuminated by an emerald laser beam.

Year	Title	Composer	Description of Work
1989-1993	*The Edison Effect*		Ancient phonograph records, wax cylinders, and holograms are scanned with lasers to produce music
1989	*Ma Chambre de la rue Krutenau en satellite*	Sarkis	
1990	*68 Kilometres de Musique*	Robin Minard	Installation with microphones and computer-controlled MIDI instruments conceived for the public address system of the Montreal subway system.. Conversion of city noises into controls for MIDI instruments
	Two Suspended Grand Pianos	Paul Pnhuysen	
1991	*Ayum-ee-aawach Oomamamowan*	Rebecca Belmore	A giant megaphone is installed in the Rocky mountains, carrying the voices of Native Canadians gathered to "speak to their mother". Says Belmore: "Protest often falls on deaf government ears, but the land has listened to the sound of our voices for thousands of years"
1991-on-going	*Walks*	Janet Cardiff	Cardiff has produced over 16 walks, in her voice guides users donning a CD walk-man through an indoor or outdoor space; the walks sometimes have visual elements (video or photos) and typically last between 10 and 15 minutes

Year	Title	Composer	Description of Work
1991	*Lady's Glove*	Laetitia Sonami	Sonami creates "performance novels" using the "Lady's Glove" and other controllers that are able to interpret complex gestures using sensors for pressure, movement, and space
	Soundcatch-ers	Robin Minard	Installation for 4 wall-mounted sound reflectors and 2 resonators, and MIDI instruments conceived for the courtyard of the Wissenschaftzentrum Berlin. Localization of sound elements in various parts of the courtyard area
	Liquid Percussion	Trimpin	
1992	*Cut Pipe*	Gary Hill	
	Withershins		interactive sound installation with video projections
	Sprunge	Hans Peter Kuhn	
	Le Passeur	Cecile LePrado	Installation in the Parc de la Villette in which sounds gathered on-site are transformed in a studio and rebroadcast in the park using hidden cables and loudspeakers; "the sounds express their own meaning and their own interpretation of the memory of the garden"
	Stationen	Robin Minard	Installation for a bell tower in Berlin's Parochial Church. Sound-color mixed with filtered and lightly-reproduced street noises using integrated microphones, integrated speakers and MIDI instruments

Year	Title	Composer	Description of Work
1993	*To Touch*	Janet Cardiff	Visitors enter a darkened room and touch an old carpenter's table, activating voices and sounds coming from speakers around the room; open narrative structure made up of unstable fragments; voyeuristic stories
	Walkthrough	Max Neuhaus	Sound work for the Jay St. subway station, Manhattan.
	Intersection	Don Ritter	Interactive installation using custom software and sensing system. Visitors are confronted with the sounds of 4 or 8 lanes of car traffic rushing across a completely dark space. Cars halt, idle and accelerate according to visitors' movements
1994	*Brown Sound Kit*	Martin Kersels	Unplugged model of an apparatus that emits low frequency sound waves intended to incontinence; originally designed by Nazis and used by French military to control student protests
	Vocatifs	Cecile LePrado	Installation in which surnames of children who disappeared in the 1998 Yugoslavia war are read, sampled, and processed until they are unrecognizable. A motion sensor starts the original list when a visitor enters; visitor movements determine reverberation effects. The deeper the visitor comes into the room, the more the direct sound is lost

Year	Title	Composer	Description of Work
	Speaker Swinging	Gordon Monahan	Static sine tones are rotated ns pace by three performers swinging loudspeakers around them in a circle
1995	*The Dark Room*	Janet Cardiff and George Bures Miller	Interactive installation in which visitors enter a dimly lit laboratory/living space and trigger stories of scientists researching a "black pool"
	Stuck and Slipped	Paul DeMarinis	
	The Frenchman	Louise-Philippe Demers	
	Horstein	Ulrich Eller	Permanent sound sculpture at the Kunstverein Neuenkirchen/Soltau
1995/ 2000	*Objects of the Dealer*	Martin Kersels	Trip-switches activate a cacophony or electronic beeps and buzzes whenever a piece of office equipment is used
1995	*Locales*	Alivin Lucier	
	Silent Music	Robin Minard	550 piezo loudspeakers are mounted in such a way that they take on plant-like characteristics, drawing energy from light. Photoelectric transformations change light into soft murmurs, shifting with the time of day and weather; using light sensors, tape, and MIDI instruments
1996	*Manandarb-andr-radarradio Klangstation*	Andres Bosshard	
	Generative Music	Brian Eno	

Year	Title	Composer	Description of Work
	Dream Screens	Susan Hiller	On-line work where users click through colour screens while listening to vocal improvisations, recollections of dreams, heartbeats, pulsar signal, Morse code
	Hand Heard	Gary Hill	
	Balkangezwitscher	Arsenije Jovanocic	
	Dark Cloud	Rolf Julius	At the Jan turner Gallery, Los Angeles
	Uber die Stille	Christina Kubisch	
	Neptun	Robin Minard	Sound space with 17 meters of wall-mounted loudspeaker ribbon and 4 CDs; the loudspeaker ribbon forms a continuous vibrating band around the entire listening space
1996-1999	*Trace*	Teri Rueb	Sounds are mapped to space along a network of hiking trails in the Canadian Rockies. Listeners carry location-sensing backpacks, hearing memorial songs, poems, and stories play in response to their movement through the trails. Participants could also contribute their own sound recordings to be included in the work.

Year	Title	Composer	Description of Work
1996	*Otodate*	Akio Suzuki	Oto is Japanese for sound and "odate" is the contraction of "nodate", meaning "open air tea ceremony". Each sound is invited to a ceremony with no hierarchy, and the listener is encouraged to take part in the event by taking up position at the best listening points. Suzuki marks the locations of echoes by drawing footprints on the ground so that each passer-by can appreciate the aural qualities of the site at that particular moment
1997	*Empty Vessels*	Alivin Lucier	Eight green glass flasks, vases and melon jars are placed on pedestals positioned in specific locations in a room. Mics are placed in the vessels and routed to 8 loudspeakers; the volume of amplifiers is set just below the threshold of feedback. As visitors walk through the installation the motion of their bodies alters the soundscape
	The Pier	Hans Peter Kuhn	A light-and-sound installation along the Hudson River in Manhattan. 9 plywood pillars painted in pairs of bright solid colors were spaced equidistantly on Pier 32; sounds of the river were programmed to move along a succession of speakers down the length of the pier

Year	Title	Composer	Description of Work
	The Clocktower Project	Christina Kubisch	Solar sensors activate a 1000 pound bell depending on intensity and location of the sun; pre-recorded bell sounds are broadcast. Sunny summer mornings generate loud, distinct, metallic tones, while grey afternoons in winter bring softer, more melancholic sounds. At the MASS MoCA clocktower.
1998	*Harmonic Bridge*	Bruce Odland and Sam Auinger	Low-frequency sounds roll and drone under the Route 2 overpass near MASS MoCA. The sounds of cars overhead counterpoised with a humming C. Two 16 foot tuning tubes are affixed to a guardrail on the bridge, with the mics placed at harmonic intervals inside the tubes. As traffic passes by, its noise generates a sympathetic resonance in the columns of air inside the tubes; sound is miced, amplified and broadcast to concrete cube speakers under the bride
	Loud House	Martin Kersels	The artist's footfalls, shown on a rooftop monitor, send a clamorous thunder through a four-meter-high corrugated metal shed

Year	Title	Composer	Description of Work
1999	*Dissociated Voices*	Bernhard Gal	5 modified plastic barrels are hung from various points on the ceiling. The hollow bodies acoustically separate the interior and exterior spaces as well as visually isolating the listener. On the underside of each object is a circular hole; when one holds one's head inside, a light sensor switches on the sound from two speakers hidden in the barrels. A light source illuminates the interior space of the barrel; the rest of the installation is dark. To the external viewer the listener seems to fuse with the object
	Klang Flub Licht Quelle	Christina Kubisch	Visitors wear special induction headphones to hear sounds emerging from a cable structure installed along the length of a room; they create unique compositions depending on where they travel
	Soliloqui	Shirin Neshat	Audio/video installation. Composition by Sussan Deyhim features Koranic recitations, Kurdish choirs, Catholic chants, Tibetan ritual music, shortwave radio conversations from Syria and Turkey
1998	*Bausatz Noto*	Carsten Nicolai	Albums containing "infinite loops" rotate on four record players; visitors create their own mix played back on headphones or loudspeakers
1999	*Marzahn-*	Hans Peter	The roofs of 44 high-rise

	seen by light	Kuhn	buildings, making up a housing project in Berlin, were lit with 44 colors, while concrete sounds emerged from pipes underneath the streets
	Visitations	Ron Kuivila	An imaginary excavation of the "voice" of Sprague Electric Company, now housing the Mass MOCA. Says Kuivila: "The history of a place is hidden in the gentle murmur of its room tone- a din too soft to discern with the human ear." Sounds include oral interviews, radio broadcasts, readings, Sprague advertising video soundtracks, industrial sounds and computer-generated noises
	Private Call-Public Address II	Brandon LaBelle	This work consisted of mapping public telephones over a period of 3 days in Copenhagen. The phone booths were recorded by placing contact mics on the actual phone boxes and played back in an exhibit of the work
	Kerne	Carsten Nicolai	A table holds glasses filled with water; loudspeakers on either side of the room emit pulsating sounds; the room is fitted with two wooden walls into which holes of varying size are carved. As visitors move around the room they can see their movements reflected in the movement of the water

	Fluid Interference		Animates fluids with audio signals of various frequencies, durations and timbres. Waves produced nodal and interference patterns
	Realistic		A table holds a mic and tape recorder on which the "erase" button has been removed. All sounds recorded during the duration of the exhibit are stored on a short endless tape loop, creating a memory of the audible environment
	Audio Recordings of Great Works of Art	Ed Osborn	Osborn collected sound recordings of the background noise in the immediate proximity of central works of European art, noting a complete indifference between the sound environment and the content of the art
	Open City: Public Spaces	Teri Rueb	A telephone-based archive of recordings are accessed by listeners in downtown Washington D.C. Using cell phones or pay phones visitors could dial a toll-free number that played a series of going-out messages identified with a specific location. At the end of the recording participants could leave their own messages that would be integrated into the out-going messages for future visitors

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	Music For A Quarry	Walter Fahndrich	Clear tones call across the natural ampitheatre of the Hoosac Marble Quarry; broadcast from 10 speakers equally spaced along its circumference, for 15 minutes of twilight every evening. A computer program begins the music at the same solar time (rather than clock time) each night. The first tone appears at the precise moment of the astronomical sunset
1999-2001	*Le Jardin des Ovelyniers*	Nicolas Reeves	A sound sculpture based on the transformation undergone by 5 rotting oranges, as interpreted by a system that converts these changes into sound signals
2000	*noise is a noise is a noise*	Brandon LaBelle	A piano is placed inside an abandoned guard shack, its strings made to vibrate by a fan mounted against them; this sound is amplified by speakers mounted against the interior walls of the guardshack. Metal cans are mounted on the exteriror of the building, creating listening points
	topophony of the text		Five wooden boards with speakers mounted in them playback a recording of LaBelle reading only the vowels of the last section of Roland Barthes's "The Pleasure of the Text"

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	Firmament 2 (Curvatres)	Bernard Leitner	Percussive sounds from two curvatures above the listener, who sits on a chair. Six speakers are mounted on a steel half-circular structure suspended in the air. Tone lines running linearly from sound point to sound point for the curvature over the person
	Witness	Susan Hiller	Recordings of testimonies of UFO sightings from around the world are played back on tiny speakers in semi-darkness
	telefunken	Carsten Nicolai	Instructs listeners to run their audio signals recorded onto CD through a television set; drones, pulses and loops trigger corresponding visual patterns
	emerging from the perturbation field	Minoru Sato	Uses sources of light to create sound fields
	Dialtone	Tamas Szakal	Teleinteractive net audio installation that connects an exhibition venue with a telecommunications network. 3 answering machines receive sound samples from anywhere in the world. Visitors in the venue mix the recorded messages and upload samples to stream on-line

Year	Title	Composer	Description of Work
2000-on-going	*Silophone*	Thomas McIntosh, Emmanuel Madan	Sounds are entered into an abandoned silo in Montreal from around the world using phone or internet; broadcast into the vast grain chambers and transformed by the acoustical space before being rebroadcast back o the user www.silophone.net
2001	*oh so pretty*	Michael Brewster	Visitors enter a silent, dim room where the only visible object are mounted loudspeakers and a button that reads "PRESS ON". The room is filled with sustained tones that throb and pulsate according to the movement of the listeners
	Forty-part Motet	Janet Cardiff	Forty- speaker installation version of Thomas Tallis's Spem in Alium. Each singer in the choir is recorded individually using binaural microphones, and played back through a single loudspeaker
	Paradise Institute	Janet Cardiff with George Bures Miller	A large-scale model theater holds 17 people who view a black-and-white film. The film's soundtrack blends and overlaps with the real and artificial soundtrack of the theater. The story is of a man strapped to a bed; a woman tries to save him from imminent disaster
	Acoss the Pond	Andreas Oldorp	An installation with 7 organ pipes in a valley. Visitors are lead along a hiking path into a sound space that streams through the entire valley in multi-perspectival refractions

	A Letter From New York	Kim Sooja	The sirens and horns of fire engines, ambulances, police cars and jet engines signal a crisis reminiscent of 9/11; overcome by the sounds of Tibetan monks chanting
	Shared Bandwidths	Liz Philips and Anney Bonney	An interactive sound and video installation that explores the phenomenon of "ghosting" in wireless communication: the interference of radio transmissions by architectural and geographical formations. 3 Polaroid Ultrasonic Rangefinders are aimed out from the main screen and sense the audience using echo; activating sound and video environments
2001-on-going	*Invisible*	Kara Lynch	Multimedia installation that deals with the invisibility of blackness; see chapter 8
2002	*Vocale Vocale*	Terry Fox	A synesthetic installation that derives from Rimbaud's poem"Voyelles," which assigns a specific color to each vowel. Five colored lengths of fabrics hang from the ceiling. Sown into the seams along the bottom of these strips are spices which can be linked to corresponding colors. A blend of hues and fragrances envelop the room, superimposing itself on the subjective world of memories and associations.

Year	Title	Composer	Description of Work
	Machina temporis	Bernhard Gal and Yumi Kori	The now-ruined Franciscan monastery in Berlin's Mitte district was built in the 12th century and severely damaged in WWII. The original spatial concept can only be experienced as a trace. Gál and Kori try to revive the spatial dynamic of the site, without reconstructing the building itself. Trans- lucent textiles accentuate spatial zones that were originally created by the archways of the aisles. By moving under the fabric, the visitor passes through zone after zone. Under each textile screen, one experiences a separate acoustic zone based on concrete sound recordings carried out on site
	Sorrowful-Echo	Jean-Pierre Gauthier	
	why grey, why yellow, why green	Rolf Julius	Black "spots" on a wall seem to float in front of a remote sound; a grayish-brown surface made of cement dust also floats; rushing and roaring sounds correspond to these and other small objects in the space

Year	Title	Composer	Description of Work
	Innen-Weiten/ Selbst-Vermessung	Bernard Leitner	A three-channel spatial composition played over loudspeakers installed beneath metal sheets on both sides of a listening chair and two outward-facing loudspeakers; boundaries between interior and exterior shift and dissolve
	Koto in the Sky	Miya Masaoka	Laser lights beam between two buildings with performers stationed in the fire escapes. Wielding mops and broomsticks, the performers trigger samples with exaggerated gestures, creating layered textures of sound
	Swing Set	Ed Osborn	Several children's swings are hung in close proximity. Each swings moves on its own and carries a bare loudspeaker facing upwards playing long tones and static sounds that change slowly as the swings move
	Moon Field	Steve Roden	Electronically stored sound material (in an eight-channel composition) is played over mini loudspeakers in bottles distributed in the room like an extended flower bed. The sound source is the voice of Yuri Gagarin, the first astronaut in outer space

Year	Title	Composer	Description of Work
	Mandala	Kim Sooja	Installation of a jukebox decorated with mirrors and plastic ornaments that plays sounds of Tibetan chants
	Two Maraca Players	Santiago Sierra	Two blind men are hired to play in a gallery, earning a better wage than they would on the streets of Mexico City
	Displace-ment of a Cacerofada		Relocates the clamorous protests (cacerofadas) of demonstrating Argentinians to the origins of their distress – Western money capitals. Protest sounds are burned onto several thousand CDs that are played in London, New York, Geneva
	trans Formation	Erwin Stache	An installation viewed through the gallery windows. There are 3 light diodes which flicker or display digits from 1-9; and 3 gates mounted on tripods. Hand symbols mounted on the windows invite viewers to explore the theatrical sound machine. Light sensors react to hand movements. Program written in Assembler – to convert the motion into electrical signals and transform simple haptic acts into musically precise concepts

Year	Title	Composer	Description of Work
	Ever	Miki Yui	Four sine tones move in space towards one another, creating audible beats; from time to time one hears concrète sounds that seem to repeat but are merely similar; there is an overall sense of indefiniteness. Visitors are invited to leave notes about their experience
2003	*The Listening Place*	Ros Bandt	A permanent sound installation set in a bluestone seat in Alma Park (Australia). The seat has the word "listen" inscribed in it; running on a loop are stories told in many different languages by past and current users of the park
	Narcissus and Echo	Terry Fox	
	MC (vibrations on subject hood)	Christof Migone	Hip-hop and dancehall tracks are transformed using an Audi-Oh vibrator which translates the bass thumps into vibrations; performers sing along with the tracks; audience hears only vibrations on the floor and feeble attempts at singing

Year	Title	Composer	Description of Work
	Wavetable	Liz Phillips	Interactive sound installation using a nautilus shell; listens for the quietest sounds and plays them loudly; shrinks when there's a lot of noise; done with analog synthesis, a mic in shell and a speaker in the shell; hears itself or heard people; a lot of the sounds are tuned just to move the water; table built like a steel drum (how water moves)
	Shots	Santiago Sierra	Sounds of celebration are indistinguishable from sounds of war
	mapamp	Tamas Szakal	

APPENDIX B

SELECTED SOUND ART EXHIBITS

Exposition de Musique
Galerie Parnass, Wuppertal-Elberfield
March 11-March 20, 1963
Artist: Nam June Paik

Sound Sculpture As
Museum of Conceptual Art, San Francisco
April 30, 1970
Description: An evening of sound actions by nine artists
Curator: Tom Marioni
Artists: Arlo Acton, Paul Kos, Tom Marioni aka Allan Fish, Terry Fox, Mel Henderson, Jim Melchert, Peter Macan, Jim McCready, Herb Yarmo

MOCA-FM
Museum of Conceptual Art, San Francisco
1971
Description: One-minute sound-action works by twenty-five artists broadcast on radio
Curator: Tom Marioni

Notes and Scores for Sound
Mills College Art Gallery/Museum of Conceptual Art, San Francisco
January 9-January 30, 1972
Curator: Tom Marioni
Artists: Vito Acconci, Charles Amirkhanian, E. Anderson., Robert Ashley, A. Brown, Terry Fox, Howard Fried, N. Gardiner, T. Gnazzo, P. Kennedy, A. Lecci, Jim Melchert, Dennis Oppenheim, Saul Ostrow, Nam June Paik, B. Smith, J. White

Another Dimension
National Gallery of Canada
October 28-December 11, 1977
Description: Exhibit of kinetic sound sculptures
Curator: Mayo Graham
Artists: ??

Space/Time/Sound: Conceptual Art in the Bay Area, the 1970s
San Francisco Museum of Modern Art (SF MOMA)
December 21, 1979-February 10, 1980
Description: "The exhibition focused on the aspect of conceptual art that exists within the sculpture tradition on which artists work in performance and on-site installations. This activity in the San Francisco Bay Area, a contributing force to the vitality of the art community in the 1970s, was represented by key pieces created by twenty-one artists, showing the diversity within this expression."
Curator: Suzanne Foley
Artists: Richard Alpert, Ant Farm, Paul Cotton, Peter D'Agostino, Terry Fox, Howard Fried, Suzanne Helmuth and Jock Reynolds, Mel Henderson, Lynn Hershman (founder of the Floating Museum), Paul Kos, Stephen Laub, Tom Marioni (Museum of Conceptual Art), Jim Melchert, Linda Montano, Bill Morrison, Jim Pomeroy, Darryl Sapien, Alan Scarritt (Site Gallery), Bonnie Sherk (The Farm), T.R. Uthco and John Woodall

Für Augern und Ohren
Akademie der Kunste, Berlin
January 1980
Description: Historical survey of the mechanization of music; exhibited a vast panorama of sound objects, automatic instruments, orchestrions and mechanical pianos
Curator: René Block
Artists:??

Écouter Par Les Yeux: objets et environnements sonores
Musée d'Art Moderne de la Ville de Paris
June 18-August 24, 1980
Description: Intended to document the growing importance of sound in the vocabulary of the plastic arts; only includes works by "sound sculptors", not by composers

Curators: Suzanne Pagé, René Block, Nele Hertling, Lorenz Dombois
Artists: William Anastasi, Laurie Anderson, Ay-o, Vladimir Baranoff-Rossiné, Bernard and François Bachet, Connie Beckley, Ben, Joseph Beuys, Claus Böhmler, Geroge Brecht, K.P. Brehmer, Pol Bury, John Cage, Hans Joachim Dietrich, Jean Dupuy, Robert Fillio, Bill Fontana, Ruth Francken, Jochen Gerz, Dick Higgins, Stephan Von Huene, Dorothy Iannone, Joe Jones, Edward Kienholz, Milan Knizak, Yannis Kounellis, Takehisa Kosugi, Piotr Kowalski, Shigeko Kubota, Bertrand Lavier, Bernhard Leitner,
Man Ray, Tom Marioni, Robert Morris, Dennis Oppenheim, Hans Otte, Nam June Paik, Martin Riches, Dieter Roth, Luigi Russolo, Sarkis, Eric Satie, Konrad Schnitzler, Dorothée Selz, Keith Sonnier, Simon Suarez, Takis, Jean Tinguely, Wolf Vostell, Robert Watts

L'Oreille oubliée
Centre Georges Pompidou
October 28, 1982-January 3, 1983
??

I Am Listening/J'écoute
York University
May 25-July 29, 1995
Description: The exhibition dealt with the conditions of listening in public spaces, the ways in which sound moves through space, the impact of natural elements (air, water, wind) on our perception of sounds, and on the silence required for listening. The curator wrote: Our culture relies heavily on and attaches great value to visual information such as images, works of art and written texts. We tend to neglect aural sources of information, remaining unaware of sound in our day-to-day environments, and allowing our urban soundscapes to be filled with unnoticed noise. I Am Listening links the visible with the audible, approaching sound in relation to our imagination of the unheard, and in relation to the architectural surroundings of the installation site. (from S:ON)
Curator: Gayle Young
Artists: Charles de Mestral (Montreal, Que.), Raymond Gervais (Montreal, Que.), Nobuo Kubota (Toronto, Ont.), Richard Reitzenstein (Grimsby, Ont.), Jocelyn Robert (Quebec City, Que.), David Rokeby (Toronto, Ont.) and Gayle Young (Grimsby, Ont.); plus a performance

by Critical Band (Toronto, Ont.), and a performance by Kathy Kennedy (Montreal, Que.), which was interpreted by Robin Gorn

Sound in Space: Adventures in Australian Sound Art
Museum of Contemporary Art, Sydney
May 26-August 22, 1995
Description: "*Sound in Space* comprises an exhibition, performances, talks and screenings exploring the elusive medium of sound. The core of this series of programs is an exhibition of installations positioned in and around the Museum of Contemporary Art. The works are designed to invite listeners into the space, call for attention, engage aural and visual senses, and stimulate the intellect. They range from those which integrate sound with a visual component, to purely aural forms which evoke visual images and sensations by audio triggers. Visitors to the installations become participants in the artists' conceptual explorations as they interact with these various components. In creating a depth of sensory experience, the selected works encourage audiences to move beyond the general perception of sound as being transitory and intangible (and thus insignificant)."
Curator: Rebecca Coyle
Artists: Ernie Althoff, Hoan Brassil, Densil Cabrera, Sherre Delys, Nola Farman, Joyce Hinterding, Rainer Linz, Ion Pearce, Deborah Vaughan, Anna Gibbs, Panos Couros, Wayne Stamp, Robert Britton, Nigel Helyer, Greg Schiemer
website:
http://www.sounddesign.unimelb.edu.au/web/biogs/P000451b.htm

Sonambiente: Festival für Horen und Sechen
Akademie Der Kunste, Berlin
August 9-September 8, 1996
??

Incredibly Soft Sounds
Gallery 101 in Ottawa
January 8-February 7, 1998
Description: To explore the limits of audibility; focusing on "the barely audible, the very small, the minute detail, the distant, the private, the personal, the fragile, the secret, the interior". Incredibly Soft Sounds was

accompanied by a limited-edition CD containing the notes: "When listening to this CD, reduce the volume on your sound system until it is just barely audible. If you are broadcasting the CD on the radio, play at normal levels but ask your listeners to turn down the volume on their radios. One of the CD tracks traces the listener's path through the exhibition and provides fragments of the works played – a "sound portrait" of the exhibition space (S:ON)
Curator: Emmanuel Madan
Artists: Noreen Battaglia (NS), Michael Campbell and Ian Cauthery (Ont.), Terence Dick(Ont.), Brandon Labelle (US), Eric La Casa (France), Christof Migone (Que.), Claude andJeannine Schryer (Ont.), Terry Piercey (NB),Carl Stewart (Ont.) and Sandra Szasz (Brazil and Que.).

Voice Over: Sound and Vision in Current Art
London Hayward Gallery (Touring Exhibition)
January 31-** 1998
Description: Explores the use of sound and the idea of the voice in current art, presenting a selection of artworks from the 1990s that embody or strongly allude to a sense of the voice as a primary transmitter of artistic meaning. Including work - some newly commissioned - by nine artists from Europe and North America, Voice Over features the voice in several modes: conversational, declamatory, intimate, expressive, collective and individual; heard and unheard. Voice Over demonstrates the play between sound and vision in current art, and raises questions of articulation, of what is declared and what is left unspoken, and of mining for meaning in both the personal and collective subconscious.
Artists: Tacita Dean, Stan Douglas, William Furlong, Joseph Grigely, Lucy Gunning, Bethan Huws, Ross Sinclair,
website: http://www.haywardeducation.org.uk/sites/voiceover/

Voices: Artists and Sounds
Rotterdam, Barcelona, France
June 13-August 23, 1998
Description: ??
Curator: Christopher Phillips
Artists: Vito Acconci, Judith Barry, Geneviève Cadieux, Jochen Gerz, Gary Hill, Pierre Huyghe, Kristin Oppenheim, Janet Cardiff, George Bures Miller, Moniek Toebosch

website:
http://www.thephotographyinstitute.org/www/journals/1999/phillips_innocent.html

Earmarks
Mass MOCA
July 3-October 20, 1998
Description: One of the largest installations of site-specific sound art on the East Coast. Focusing on issues of site, scale, and the interaction of technology, art and community.
Artists: Ron Kuivila, Christina Kubisch, Bruce Odland/Sam Auinger, Ulrich Eller, Ed Osborn, Jens-Uwe Dyffort/Rosawitha von den Driesch/Klaus Lebkucher, Alvin Curran/Melissa Gould
Website:
http://www.massmoca.org/visual_arts/past_exhibitions/visual_arts_past_1998.html

Sonambiente-Festival for the Eyes and Ears
Akademie der Kunste, Berlin
August 9-September 8, 1998
Curators: Matthias Osterwold,
Artists: Laurie ANDERSON, Sam AUINGER/Bruce ODLAND, Andres BOSHARD, Nicolas COLLINS, Paul De MARINIS, Louis-Philippe DEMERS/Bill VORN, Ulrich ELLER, Brian ENO, Terry FOX, Paul FUCHS, Hans GIERSCHIK, Gün, Josefine GÜNSCHEL, Felix HESS, Gary HILL, Stephan von HUENE, Robert JACOBSEN, Arsenije JOVANOVIC, Rolf JULIUS, Christina KUBISCH, Hans Peter KUHN, Ron KUIVILA, Bernhard LEITNER, Alvin LUCIER, Christian MARCLAY, Robin MINARD, Gordon MONAHAN, Max NEUHAUS, Ed OSBORN, Roberto Paci DALÒ/Isabella BORDONI, Nam June PAIK, Paul PANHUYSEN, Yufen QIN, Martin RICHES, Don RITTER, David ROKEBY, Nicola SANI/ Mario SASSO, Sarkis, Leo SCHATZL, Kyra STRATMANN, SUZUKI Akio, Ana TORFS, Trimpin, Peter VOGEL, Red White and Young Farmer's Claim Future

Sonic Boom: The Art of Sound
London Hayward Gallery
April 27-June 18, 2000
Description: "Sonic Boom scans some of the most vital artists currently

working within this expanding field at a critical moment in the evolution of media... [it] offers a landscape of the imagination, transforming the perception of sound from peripheral sense or discrete spectated event to a total environment for all the senses." The UK's largest exhibition of sound art.
Curator: David Toop
Artists: ??

Scenes of Sound (S.O.S.)
The Tang Gallery at Skidmore College
October 28-January 28, 2000
Description: "An exploration of sound through art, artifacts and contemporary culture [...] Inventions such as the telephone, tape recorder, loudspeaker, radio, Walkman, compact disk, internet radio, and computer-synthesized speech have produced dramatic shifts in human communication. The resulting reconfigurations of acoustic space--of what we hear and how we hear it-have held increasing fascination for contemporary artists. So whilefor most critics the notion of sound (implied or actually heard) in the context of a visual artwork remains problematic, and while to the uninitiated sound is a particularly esoteric
component of avant-garde practice, there is in fact a rich vein of art in which sound is either subject matter or primary element
Curators: Stephen Vitiello,
Artists: Alan Berliner, Wallace Berman, Nick Cave, Rafe Churchill, Ann Hamilton, Rebecca Horn, David Thomas Kehoe, Martin Kersel, Barbara Kruger, Bernard Leitner, Annette Lemieux, Bev Mastrianni, Bruce Nauman, Nam June Paik, Jeff Talman, Javier Tellez, Gebhard Sengmuller, Laurie Simmons, Alan Rath, David Rokeby, Stephanie Rowden, Stephen Vitiello, Andy Worhol, Audio Art Library: Richard Artschwager, Bill Fontana, Alison Knowles, Sol LeWitt, Claus Oldenberg, Yoko Ono, Adrian Piper, and Wolf Vostell
Website:
http://www.skidmore.edu/tang/inaugural_exhibits/sos_exhibit.htm

Volume: Bed of Sound
P.S.1 Contemporary Art Center in N.Y.C.
July 2-September **, 2000
Description: An encompassing exhibition of sound works in an unusual

setting. Sound art is presented in two sections. Works by approximately 60 sound artists are experienced through headphones while lying on New York's largest futon bed. In an adjacent space, sound is experienced collectively through loud speakers for casual or prolonged listening.
Curators: P.S. 1 Director Alana Heiss and Elliot Sharp
Artists: Muhal Richard Abrams, Vito Acconci, Maryanne Amacher, Laurie Anderson, David Behrman, Ed Campion/Andrew Ginzel/Kristin Jones, John Cale, Joel Chadabe, Chop Shop, Chris & Cosey, Cibo Matto, Beth Coleman, Nicolas Collins, Tony Conrad, ÁCubanismo!, Alvin Curran, Chris Cutler, Tod Dockstader, John Duncan, Fischerspooner, Yamataka Eye, Ellen Fullman, Matt Heckert, John Hudak, I-Sound, Phil Kline, Keenan Lawler, Arto Lindsay, Alvin Lucier, Paul de Marinis, Kaffe Matthews,
Genken Montgomery, Ikue Mori, Impossible Music, Butch Morris, Walter Murch, Phill Niblock, Carsten Nicolai/Noto, Genesis P-Orridge, Bob Ostertag, John Oswald, Pansonic, Zeena Parkins, Daniel Pflumm, Lou Reed, Vernon Reid, The Residents, Frank Rothkamm, Ben Rubin, Adriana S, Michael Schumacher, Howard Shore/Ornette Coleman/LPO, Sonic Youth, Steinski, Carl Stone, Telectu, Frances-Marie Uitti, Carl Michael Von Hausswolff, London Wainwright, and Lauren Weinger.
website: http://www.ps1.org/cut/volume/

010101: Art in Technological Times
San Francisco Museum of Modern Art (SF MOMA)
January 1-July 8, 2001
Description: 010101 charts new developments in contemporary art, architecture, and design as they evolve in, and are influenced by, a world altered by the increasing presence of digital media and technology. Presented in the galleries and online, the exhibition features work (including many newly commissioned pieces) in all media by some 35 artists and designers. Included five Web-based commissions accessible online from January 1; from March 3 through July 8, 2001, over two dozen installations, video works, sound pieces and digital projects, were on view in the SFMOMA galleries.
Curators: Aaron Betsky, Janet Bishop, Kathleen Forde, John Weber, and Benjamin Weil
Artists: Mark Napier, Entropy8Zuper, Thomson & Craighead, Matthew Richie, Erik Adigard, Janet Cardiff, Droog Design, Karim Rashid, Sarah Sze, Brian Eno, Karen Sander, Jochem Hendricks, Kevin Appel, Chris

Finley, Adam Ross, Décosterd and Rahm, Yuan Goang-ming, Lee Bul, Roxy Paine, Shirley Tse, John Maeda, Asymptote Architecture, Craig Kalpakjian, Tatsuo Miyajima, Hu Jie Ming, Rebecca Bollinger, Chris Chafe and Greg
Niemeyer, Char Davies, Annette Begerow, Jeremy Blake, Heike Baranowsky, Euan MacDonald, Rodney Graham
website: http://010101.sfmoma.org/
and
http://www.sfmoma.org/press/pressroom.asp?arch=y&id=34&do=events

Between Sound and Vision
Gallery 400, College of Architecture and the Arts, University of Illinois at Chicago
February 14-March 10, 2001
Description: Propelled by work produced by a network of friends, collaborators, and students gathered around John Cage [...] expands Cage's legacy with contemporary sound works and moves beyond the walls of the gallery in a week-long series of performances, an extensive website, a CD of commissioned recordings, and even several radio appearances
Curators: Hannah Higgins (curator); Dasha Dekleva, Kristina Dziedzic (associate curators)
Artists: Eric Andersen, Jeremy Boyle, Philip Corner, Heri Dono, David Dunn, Kenneth Goldsmith, Dick Higgins, Joe Jones, Alison Knowles, Joan La Barbara, Brandon LaBelle, Charlotte Moorman, Max Neuhaus, Phill Niblock, Jack Ox, Paul Panhuysen, Minoru Sato (m/s), Carolee Schneemann, Dan Senn, William Stone, Yasunao Tone, Trimpin, Yoshi Wada, Hildegard Westerkamp, Achim Wollscheid
website:
http://www.uic.edu/aa/college/gallery400/01exhibit_pages/01_sound_and_vision-text.htm

Bitstreams
Whitney Museum of American Art
March 22-June 10, 2001
Description: ??
Curators: Lawrence Rider and Debra Singer
Artists: Gregor Asch (DJ Olive the Audio Janitor), Luke Bacher, Lew

Baldwin, Jonathan Bepler, Jeremy Blake, Jim Campbell, Brian Conley, Jordan Crandall, Richard Devine, Sussan Deyhim, DISC, Sally Elesby, Jeff Elrod, Carl Fudge, David Gamper, Leah Gilliam, Jon Haddock, Ann Hamilton, Andrew Deutsch, John Herndon, John Hudak, Arthur Jafa, Craig Kalpakjian, Kynn Marie Kirby, John Kilma, Brandon LaBelle, Robert Lazzarini, LOT/EK, MATMOS, V. Michael, Paul D. Miller (aka DJ Spooky That Subliminal Kid), Ikue Mori, P. Mutt, Warren Neidich, Jim O'Rourke, Andrea Parkins, Paul Pfeiffer, Michael Rees, Marina Rosenfeld, Jason Salavon, Elliot Sharp, John F. Simon, Jr., Fred Szymanski, Diana Thater, Yatsunao Toné, töshöklabs, Inez Van Lamsweerde, Stephen Vitiello, Gregory Whitehead, Pamela Z
website: http://www.whitney.org/bitstreams/

Visual Sound (Part II)
The Mattress Factory
March 4-December 30, 2001
Description:??
Curators: Michael Olijnyk and Rolf Julius
Artists: Patrice Carré, Terry Fox, Rolf Julius, Takehisa Kosugi, Christina Kubisch, Hans Peter Kuhn, Robin Minard, Akio Suzuki, Juniko Wada, Qin Yufen
website: http://www.mattress.org/catalogue/currentindex.html

Frequenzen [Hz]: Audiovisuell Räume
Schirn Kunsthalle, Frankfurt
February 9-April 28, 2002
Description:??

Sonic Process: A New Geography of Sound
Centre Pompidou Paris (Touring Exhibition)
October 16, 2002-January 6,2003
Description: To examine the relationship between the visual arts and electronic music-making today. "We witness electronic culture asserting itself more and more due to interest from artists, producers, and listeners with creative potential. Electronic music is composing its structure on computers, experimenting with different parameters related to rhythm and flux, using repetition, juxtaposition, and superposition as methods, and helping itself preexisting sounds. The word "sonic"

encompasses the study of sound waves, but also musical experimentation realized with new electronic means, thus emphasizing the creative flux between these two territories with officially recognized boundaries. "Process" emphasizes the new autonomous processes of creation, production, as well as distribution outside the usual economical networks. "Sonic Process" follows the explorations undertaken in new places for performance, experimentation, and distribution of electronic music and attempts to map out this new geography. With no claim to being exhaustive, it nonetheless throws into relief certain sites, cities, and artistic capitals, and makes emerge a topology of exchanges and trajectories."
Curator: Christine Van Assche
Artists: Doug Aitken, Mathieu Briand, Coldcut/Headspace, Richard Dorfmeister, Flow Motion, Renée Green, Martí Guixé, Rupert Huber, Mike Kelley, Gabriel Orozco, Scanner, David Shea. Performances: Mathieu Briand and Cerclerouge (Babylon Joke, Les Boucles Etranges, Crystal Distorsion, Ixindamix), Cylens, Coldcut & Headspace, Vincent Epplay, Hallucinator, Opak, Phagz, Marc Piéra, Rom), Scanner, David Shea, Ultra Milkmaids, xo195/ (Cédric Pigot)
website: www.sonic-process.org

Sonic Garden
Winter Garden (N.Y.C.)
October 17-November 30, 2002
Description: In celebration of the renewal of Lower Manhattan since 9/11. "The artists, all New Yorkers, were asked to re-imagine the great downtown landmark, the Winter Garden, through sound. Their works offer an alternative to the ubiquitous visual reminders of September 11th, sensitize us to other experiences in our surroundings, and celebrate the renewed vitality of Lower Manhattan," said Anne Pasternak, Executive Director of Creative Time.
Presenters: The World Financial Center Arts and Events and Creative Time
Artists: Laurie Anderson, David Byrne, Marina Rosenfeld, Ben Rubin
website: http://www.creativetime.org/press/releases/2002/Sonic_Garden.pdf

DI-DIII: Contemporary German Sound Installations
Charlottenborg Udstillingsbygning
August 29-December 7, 2003
Description:??
Curator: Frode Gundorf Nielsen
Artists: Andreas Oldörp, Rolf Julius, Christina Kubisch

Sons et Lumières: A History of Sound in the Arts of the Twentieth Century
Centre Pompidou, Paris
September 22, 2004-January 3, 2005
Description: The largest event devoted to the relationship between music / sound and 20th century art since the "Vom Klang der Bilder" show in Stuttgart In 1985. The exhibition is built around three successive themes. [...] The first of these themes -Correspondences, abstraction, colour music, light in motion - is the evolution of Baudelaire's notion of "correspondences" within a form of pictorial abstraction drawn - as in the case of Kandinsky, the Synchromists and Klee - to the intangibility of music. [...] The second part of the exhibition - Imprints, conversions, syntheses, remanence - takes us into a markedly different world, where the notion of giving visible _expression to sound - by transcription, imprint or conversion via the new technologies - makes sonic vibration one
of the work's raw materials. [...] The third segment of the exhibition - Ruptures, chance, noise, silence - takes the form of a questioning: via the Futurists "noise", the work of John Cage, and the Fluxus movement, it focuses on the overall theme's most iconoclastic aspects. Roughly 400 works on display.
Curators: Mnam/Cci, Sophie Duplaix, Marcella Lista (associate)
Artists: Joseph Beuys, John Cage, Marcel Duchamp, Oskar Fischinger, Rodney Graham, Brion Gysin, Raoul Hausmann, Gary Hill, Vassily Kandinsky, Paul Klee, Frantisek Kupka, La Monte Young et Marian Zazeela, Piet Mondrian, Bruce Nauman, Georgia O'Keeffe, Christian Marclay, Yoko Ono, Nam June Paik, Francis Picabia, Jackson Pollock, Robert Rauschenberg, Hans Richter, Luigi Russolo, Arnold Schönberg, Paul
Sharits, Bill Viola, James & John Whitney: Boris Bilinsky, Stuart Davis, Arthur Dove, Duncan Grant, Ben Laposky, Alexander László, Thomas Wilfred, John Cage, Arnold Schönberg, [...]

Itinerarios del Sonido
City of Madrid
May 20-September 25, 2005
Description: "To reflect upon our relationship with the urban environment, the signs and symbolism we are constantly exposed to, and how we file away the codified information we receive on a daily basis. We often consider and remember the city we live in through images – this might well be in fact what seems most normal. It is, however, also possible
to recreate a city through sound, listening to the echo of the myriad voices that inhabit it." Itinerarios del Sonido invited fourteen artists to choose a site within the city of Madrid and create a sound work based on that context. Each of these sound works was installed in a city bus stop, chosen by the individual artist. Listeners were able to listen to them simply by plugging in their headphones at each bus stop.
Curators: ??
Artists: Vito Acconci, Jorge E. Eielson, Julio Estrada, Luc Ferrari, Bill Fontana, Susan Hiller, Christina Kubisch, Fernando Millán, Kristin Oppenheim, Joao Penalva, Adrian Piper, Fco. Ruiz de Infante, Daniel Samoilovich, Trevor Wishart
website: http://www.itinerariosdelsonido.org/

APPENDIX C

Interviews with Anna Friz

November 14-16, 2006

Ouzounian: What kind of work have you been doing recently?

Friz: i.e. the new piece I just took to Deutschland? The piece is called "You Are Far From Us", and was an installed performance. That is, it took me 2 days to install the gear, and 30 minutes to perform it. The rig involved 62 radios and 4 FM transmitters suspended from the ceiling in an "X" formation. The only lighting was from tiny little LED bike lights, with a bluish tint, about 20 of those.

Ouzounian: Was this a live broadcast?

Friz: Live broadcast in the room, yes. Recorded by the documentation folk from the festival (*Radio Revolten*), and later broadcast on the host community radio station Radio Corax.

Ouzounian: What's *Radio Revolten*?

Friz: Ambitiously subtitled "The Future of Radio," *Radio Revolten* was a month-long festival hosted through Radio Corax, and included daily broadcasts on their regular plus a special frequency, installations and performances mostly curated by folks from the radio art and media scene in Berlin, and a 2-day conference involving academics, free radio activists and artists from all over Europe.

Ouzounian: Can you tell me a bit about your history as a radio artist?

Friz: I started in radio at CiTR FM Vancouver in 1993, where I hosted various programs like *Radio Free Women* (feminist talk-and-rawk radio), *Lucky Scratch* (traditional blues and country-blues), and *Filibuster* (free for all—mostly a venue for weird arty-cut-up material to meet hillbillies-gone-bad and accordion music of all stripes. In 2000 I moved to Montreal, and joined CKUT FM where I co-founded the *Harvey Christ Radio Hour*, a weekly dose of mock-religious fervor, ranting, and radio

art. Now I don't do the *HYC* show much anymore, but have a monthly show at CKLN Toronto called *Nice Lil' Static*, which is a radio art show, new composition each month. In between all that, I occasionally host *Radio Free Parkdale* from my house here in Toronto.

Ouzounian: I've heard you describe your work as self-reflexive radio. How did this start, and what does it involve?

Friz: Self-reflexive in that it's radio about radio using radio.

Ouzounian: Had you been listening to this kind of work? Did it just happen one day? Does it relate to your academic work?

Friz: I think this started in the late 1990s, when I started to really use and abuse the production and eventually the on-air studios as instruments. I was not in school at the time, and though I was interested in a cut-up aesthetic *à la* Negativland, I wandered into more self-reflexive radio because I came to understand that the radio was a foil for these larger questions I had about communication, technology, identity, and desire. My academic work (M.A. and now Ph.D.) really grew out of my radio practice. And this is why I now adamantly need to do academic work that is both written and audible.

Ouzounian: Can you describe what a show might involve?

Friz: My first major piece in this vein was "The Clandestine Transmissions of Pirate Jenny." Pirate Jenny had a number of incarnations, the first as live performances. At the *Send+Receive* festival of sound in Winnipeg, I did a short version of her. The idea is that Pirate Jenny is one of the little people who live in the radio.

Yes, those little people.

Ouzounian: Do you act out a character? Do people call in and talk to her? Do you have a "Pirate Jenny voice"?

Friz: The story is that she has lost contact with others of her kind, is alone in here radio due to some kind of downsizing, must be all the voices and music that the Ears desire, but when the Ears sleep and turn off the radio, she attempts to contact others. I do the voice, using walkie-talkies and a vocoder.

In the first performance I had 10 walkie-talkies hanging over the audience, and I had two on stage with me (so I could also do walkie feedback tricks). I wore a headlamp and performed in the dark, so people could see that I was there, but not see me. Later on I made a studio version of the piece (up on Kunstradio), did a few more performances on CKUT and at PS122 in NYC for a Great Small Works Spaghetti Dinner and a series of pirate broadcasts in Montreal, where I would tune the transmitter right next to a major station. That way if someone in the vicinity had their radio slightly off the station, they would hear this SOS.

Ouzounian: You've done different kinds of performing. What's your history in performance?

Friz: Most of my performing stems from DIY street-theatre type events—vaudeville, cabaret, cheap drag shows, street operas. When I perform in the sound art/live radio art vein, it's a combination of knob twiddling, instrument manipulation, and some character(s). And dim lighting, I like that. Lets people think about listening instead of always looking.

Ouzounian: A lot of sound artists talk about getting “inside the sound." This seemed to be an early impetus for building sound installations... an immersion in sound-space... transcendence through this kind of sonic immersion. What I hear you talking about is getting inside the medium/the gear/the physicality of the sound equipment.

Friz: Yup. The materiality of radio is what I’m after. Also something very mortal, something not at all transcendent. Yes—it's ironic, because you're working with a kind of nothing-ness, but making something very real/physical/here out of it(also in terms of the content... shows about ghosts, abandoned sites, etc.) i.e. the early avant-garde believed radio would overcome distance and time, unite people across the world, embrace humanity in a kind of union through spark-speech. I want to emphasize the distance that I hear in radio, because that dream of union is the most mortal dream, is where I hear the most humanity.

Ouzounian: Do you think of this as a kind of animation? A bringing-to-life? Physically calling something into being?

Friz: This last work does feel like I'm summoning something, though again, not something uncanny, but something fragile, ephemeral. Lately I've been thinking about empathic radio and about people as radio, i.e. pulling radio away from the technology to be about transception more broadly.

Ouzounian: Does transception = transmission + reception?

Friz: Yes. But I am trying to theorize this into a more complex alternative to the dialogue vs. broadcast debates in communication studies

Ouzounian: In terms of having a human/grounded element?

Friz: *Yes, you're right. Transception is not just a walkie-talkie or cell phone, it's also potentially a way to describe how a community can interact.*
This is easier to understand when you throw radio into the mix.

Ouzounian: It seems like your focus is not just the out-there but the down-here…

Friz: Yes. They are part of the transception idea. Drawing attention to that point/the many points/place where communication happens that there is space to travel, traverse, and it may be metaphorical as well as political/geographic/emotional. The desire to communicate, however it fails or succeeds. Space—not as an empty container, but as something that is actively produced yes and imagined

Ouzounian: This is what I've been thinking about too, in terms of sound installations... not just as a way of marking physical architectures but in terms of imagining/creating/playing with spaces/places—socially and otherwise.

Friz: That's definitely what I'm interested in. And radio is again a good medium (ha ha) for that, in that radio space is imagined already.
We can only access it through these conduits. Weirdly public and intimate at the same time: radio art is public art in private space.

Ouzounian: Feminist scholars have theorized the body as a place/territory and as a social production... I want to know how gender plays into the way in which you ground/subvert radio in terms of place.

Friz: Initially I'd say that one of things I'm interested in is rethinking how we understand our relationship to technology, that is, not as prosthetic but as always already part of what it means to be us, subjects. Donna Haraway is in this lineage of thought: "machines are us", and "we can be responsible for machines." I also see gender/sexuality playing a role in how you play with machines; how you feel them and imagine them.

So... for radio, rather than being disembodied, ghostly, etc., I'm implying that the materiality of the tech as an extension of the body, and how you play/imagine your audience.

I deliberately try to highlight the physical (meat) body in performance--using crappy electronics like cheap walkie-talkies and baby monitors so you really hear the breath overloading the speaker, all those supposedly inaudible glottal sounds, emotion, etc coming through and mixing with other environments.

[…]

Ouzounian: Let's talk about your work "Vacant City Radio." That was the work through which you and I first met. I was really taken by the quality of the recording and the performance, not to mention the way you critically frame your work. Your description of being in those places is really convincing. What are you thinking/feeling when you're moving around these sites? How do you approach the sites in terms of your own sound (we hear your voice in some of the recordings)? How do you make those choices?

Friz: I am really aware of where I am while recording. It's a very phenomenologically intense space, because it is new to me, potentially risky, potentially dangerous (broken, toxic, who else is there). Also someplace hidden to me before—I feel the change in temperature inside, a little wind in the hallway, dampness underground. Very tactile.

Ouzounian: You really reveal the space with your voice/micing. What does that feel like for you to later have a document of a space that's revealed by what you did with it?

Friz: I love hearing it later—it's a trace of someplace destroyed but magical too. And the sound is very tactile. Often beautiful.

Ouzounian: It is beautiful. I have such a strong memory of your recording—it was intensely present.

Friz: Yes, the sound is so different because it is not rigidly controlled by the design or the normal city uses of space. There's a similar feeling in empty churches as in empty factories. Not religious, but liminal. Out of the normal traffic/expectation. The sound as well. Affective.

Ouzounian: In those abandoned sites you seem to have a lot more freedom in terms of discovery, exploring... Do you think there are opportunities to do this kind of work in more public/inhabited spaces? Do you feel too much external activity in the city to do this kind of exploration?

Friz: Yes, the fact of people watching you with a mic, the non-reverberance of so many places because they're densely inhabited/occupied, eternal car traffic and eternal predictability too, ironically.

Ouzounian: Can you tell me more about the liminailty of these spaces and the liminality of your experience in and with them? You said something about not-transcendent. But liminality implies an other-worldliness/an in-between.

Friz: Right. I'm interested in different states, I suppose.

Ouzounian: The sounds/places/imagination you evoke seem to travel a lot between the past/present/potential.

Friz: Often I'm making work to find a place to put my despair (the daily body count on the radio, the wars fought, etc). "The Automated Prayer Machine" that I did with Annabelle Chvostek was a direct response to the looming and then full-blown Iraq attack. "There's a risk of arrest if you turn right" that I did with Richard Williams was a testimonial to the FTAA protests in Quebec City in 2001 where we were all tear-gassed.

Ouzounian: Can you tell me about "The Automated Prayer Machine"?

Friz: *"The Automated Prayer Machine" is a performance in 3 movements*--The Tower, Requiem*, and the* Prayer Machine*. It was the*

first time that I used multiple radios and transmitters in performance, together with electronics and instruments (Annabelle played violin, me accordion). We used both the sound system and radios spread throughout the audience, which I controlled from stage, so I could pan dynamically from speakers to radios, or isolate particular sounds in one place or the other.

We solicited prayers from anyone we knew—leaving that definition totally open to people to interpret how they chose. People phoned my answering machine and left them there. Some sent religious incantations, others messages of hopes, aspirations, reconciliation.
we sampled that material and worked it into the last third of the piece some of the bits were really funny, some really sad. The first part was made from static and talk radio, the second a more instrumental requiem/transition/reaction to all that soul-crushing stuff. We toured the piece through 6 cities in Europe, and 3 in Canada, gathering more prayers as we went along

[…]

Ouzounian: I'm listening to "Vacant City Radio" right now. Do you have a copy of it you could throw on? Maybe we could do a chatting-listening…

Friz: Yeah, let me cue up here. Just loading up ole iTunes here...
Ok, I'm cued.

Ouzounian: Wanna go back to the beginning?

Friz: Ja. Rewind selector. Rewind executed. Cars on the bridge over the lachine canal. The text courtesy of the Prelinger archives.

Ouzounian: The text is really interesting both because it does this time-collapse thing that I think you deal with a lot—and also because it puts a political spin on this project.

Friz: It struck me that this debate in urban design (the demolish vs. preserve) is hardly new. The buildings collapse time too.

Ouzounian: Sure—but the way you frame it—there's an emotionality about this medium and the way you treat it that is probably pretty

absent from that debate.

Friz: I feel pretty mixed about these sites—they were in so many ways socially oppressive. Recent immigrants worked there for little. Toxic, long hours, all that stuff. But now empty they invite a different kind of contemplation.

In my case, I have no personal previous connection to these sites, but what they had become, in decay, was very compelling to me. The hubris of industrialism overtaken by systems of rust rot and regrowth. For a lot of people in the neighbourhood, those factories are loaded with memories.
These sweeps are granulated violin.

Ouzounian: Like mold can take down an industry… it's a very natural death in a way…

Friz: Do you feel the decline?

Ouzounian: *There's a track in Maryanne Amacher's CD where there's a 20-min. decline... I feel like I'm losing my sense of space/balance when I hear it. Do you think of these declines spatially?*

Friz: Yes. I feel like the radio is going into the holes in the roof and down into the rotting basements. Also wanted to prepare ears for the quiet stuff that comes.

Ouzounian: Can we talk about how layered this is? How do you prepare it?

Friz: For the radio portion, I "scratch" on the dial, i.e. I compose the moves through stations in real time, then add layers as I need to.

Ouzounian: That's incredible. Because it sounds utterly perfect.

Friz: The whole decline is real-time engineered on outboard gear (vocoder, headrush, delay pedal, distortion). I'm actually recording the sound of my harddrive oscillating with a piezo mic, then filtering it.

This stuff is all as-is field recorded, very few edits.

Ouzounian: This is from abandoned sites along the canal?

Friz: Yes, this is the Redpath sugar refinery. Now totally condo-ed. This little crank is from the Dow Brewery, a strange empty gallery with this crackly floor. Very little machinery left in this section of the building. I love how rich the floor sounds.

Ouzounian: Yes—I imagine that you were walking on glass a lot? We hear rock; sand, metal. I can hear the dirtiness of the place

Friz: Yeah, really dirty. Rat poison, asbestos.

Ouzounian: I like the distinctiveness of all the places we've heard so far. Each one is treated in a really different + personal (to the space) way.

Friz: Now we're in these 2-storey metal vats in the Dow Brewery. I tried to move from smaller to larger, so our ears can hear the differences better.

Ouzounian: We hear electronic/synthesized sweeps, and many many other layers of sound (here and there). How do you choose what to bring into the mix?

Friz: I don't always have a very logical explanation for why things work together. Actually when I'm composing I spend a lot of time imagining the sound rather than listening to what I have over and over.

Ouzounian: Do you think about the shape of the sound in the listening space?

Friz: My dirty secret is that I do a lot of mixing with headphones on, cos I don't have good monitors at the moment. Also, I try to give the radio space as much dimension as the analogue space. Not always possible, static can feel like a series of surfaces that you try to penetrate.

Ouzounian: There are also a lot of long sounds that are shaped over time; there's very little that's static here; but also very little that quickly appears/disappears. I feel like we have the time to appreciate the different sounds/spaces.

Friz: I like big long sweeps. Also the idea that things are changing slowly

Almost imperceptibly.

Ouzounian: Why is that important to you?

Friz: For this piece, because the rot of the buildings has been gradual. Plants and weather and such gradually working on the structure.
I went into places like the CN sheds almost every month for a year or two, and the changes were slight but compounded. One day you realize all the windows are gone, or a whole flock of pigeons live there where before there might have been one or two.

Ouzounian: I think it's remarkable how much you consider all those elements—the space/yourself in the space/the radio space/the hearing space/the audience/radio architecture.

[…]

Ouzounian: You were saying that you… well you were talking about the information that remains in material… that if wax cylinders or vinyl records or magnetic tape can store information/audio/images, why not plaster walls? What got you interested in ghosts/traces in the first place?

Friz: Back to the idea of transduction—all that is needed is a device/mechanism for transforming sound to inscription/back to sound.

Ouzounian: Are you aware of leaving a kind of networked trace when you're on the radio?

Friz: In part my own partial memory, in part the feeling that one can never document things thoroughly, and that one might not want to, also the idea that what one does still registers, however minor
where do you imagine that the sound goes? Does it locate itself somewhere? Does it remain somewhere? is it carried in some form

Ouzounian: The idea of partial information—partial language—I can see that relating to Haraway.

Friz: Oh absolutely—I love the idea that people had that radio signals never die, that they all decay really slowly and are somehow still audible.

Ouzounian: Do you feel connected to the early history of radio?

Friz: Once I started building transmitters, and using transmitters directly, yes. That also led me to listen to static, to search the dial more intently, which is, I realized from doing a bit of reading, exactly what early radio amateurs were up to.

Ouzounian: And also the idea of early recordings as being related to death in some way?

Friz: The ongoing question: who's there? There is a strong tendency with all media for them to become haunted. It's the troublesome quandry of presence—how can you be here and not here?

Ouzounian: I feel like we're living in a ghost culture; that the 20th century was a century of death (death of the real+the unreal; the death of god)... so what comes next? I also feel like the turn in history towards uncovering lost voices is part of this phenomenon…

Friz: Again it's related to the idea that distance and time are not overcome, but experienced intensely. "What comes next" is a good question. I'm trying to come up with a proposal at the moment for some *Future of Radio* events in Germany and Belgium, and I keep returning to an idea of empathic radio. Not sure what that will be yet, exactly.
Up to now I've stuck pretty close to the ghosts, dreamers and pirates.

Ouzounian: I think of place as being a networked production; that place is a network of distances that people bring to bear in space: i.e. the distances you have to your memory/history/imagination; the distances between you/your surroundings/your environment (cultural, etc) and where you fit along a time line (also in terms of distance) with these things.

Empathic—can you elaborate?

Friz: Radio that would enable rather than represent an interaction. Radio that would stand as alternative to the lists of dead reported daily, something to combat despair. Radio is us.

Haraway again: "machines are us" and "we can take responsibility for

machines."

Ouzounian: I'm gonna just quote here from "Vacant City Radio": "How far is far away? How far away are we? Sometimes the radio is the loneliest sound of all... and still I cast my voice like a net... and still I hope to catch someone in my range." There's so much intimacy there. And not just in these words, but in all the sounds and how they develop. I hear you having a relationship with the radio—it's responding to you; there's an emotional connection between the two.

Friz: Here I was really thinking about the little radios trying to speak to one another, and that strange way that a radio in the next room might be as far or as close as one in another city. Pirate jenny is really "inside"' but also "is" the radio. So yes, there's a strong relationship there. At no point did I feel I could separate jenny and the radio (as in the dial, the antenna etc.)

Ouzounian: So the radio as a network of bodies, and also a thing right here…diffuse/localized at the same time...

Friz: Later I would call that translocal…

Ouzounian: I think that this quality is part of what makes your work so compelling. Because your work crosses many genres—theater, music, activism, radioplay, intervention, art, cultural and critical commentary—but it's all infused with a very sensed, active feeling about this in-betweenness…

Radio Works by Anna Friz

Radio Free Women (1993-1995). Weekly Feminist talk-and-rawk radio show hosted by Friz on CiTR Radio 101.9 FM, Vancouver, British Columbia.

"The Clandestine Transmissions of Pirate Jenny" (2002). 45-minute studio version aired as part of *FREQUENCitY* series on ORF Kunstradio, Vienna. 10 February, 2002.

"Radio CRTX" (2003). 25-minute solo performance for 10 radios and accordion, for *Third Coast International Audio Festival*, The Art Institute,

Chicago. 17 October, 2003. 6-minute composition version for *Radio Territories* anthology (ed. Labelle), 2006.

Radio Free Parkdale (2005-ongoing). Monthly pirate storytelling jam broadcast out of Friz's home to her neighborhood in Toronto.

"Vacant City Radio" (2005). 35-minute studio version aired on ORF Kunstradio, Vienna, Austria, 29 May, 2005, and on DeutschlandRadio Berlin, Germany, 10 March, 2006.

nice little static (September 2006-ongoing). Radio art programme of Friz's original compositions. Airs on CKLN 88.1 FM in Toronto every first Thursday of the month.

"You Are Far From Us" (2006). Commissioned performance for opening of *Radio Revolten* festival in Halle, Germany. 20 September, 2006. Forthcoming 40-minute performance/installation for 60 radios and 4 transmitters for *Radiophonic 07* in Bruxelles, Belgium. *25 October, 2007*.

"The Chicken Apocalypse" (2006) Live toy theatre performance with the Church of Harvey Christ. Premiered at Café Concrète in Montreal, on 5 December, 2006.

"winter comes but once a year" (2007). 30-minute live performance with text, glockenspiel and weather, broadcast from shores of Lake Ontario, Oshawa, via mobile phone as part of free103point9 collective performance *Radio 4X4 Tune((In))* for *Frequencies* show at Black an White Gallery in Brooklyn, NY. 4 February, 2007.

Collectives

free103point9. 'Nonprofit arts organization focused on establishing and cultivating the genre Transmission Arts by promoting artists who explore ideas around transmission as a medium for creative expression'. http://www.free103point9.org/

The Church of Harvey Christ. "A non-denominational, denominational, Christian, non-Christian, violent pacifist militant Catholic Protestant Satanic Buddhist sect religion cult based on the lost, esoteric and largely incomprehensible teachings of Harvey Christ."

http://www.geocities.com/harvey_christ/toppage.html

Studio XX. "A feminist digital art centre for technological exploration, creation and critique. Founded in Montreal in 1996, XX highlights the territories, perspectives and creative actions of women in cyberspace and aims to demystify and deconstruct digital technologies by critically examining their social and cultural aspects."
http://www.studioxx.org/

Festivals

Art's Birthday. (1963-ongoing) An annual exchange-art event celebrated on January 17th by a loose collection of artists and artist organizations around the world. First proposed in 1963 by French artist Robert Filliou.
http://artsbirthday.net/

Ars Electronica Festival. (1979-ongoing). Internationally renowned new media festival
http://www.aec.at/en/about/festival_start.asp

Deep Wireless Festival of Radio Art (2001-ongoing). Month-long celebration of radio and transmission art. Toronto, Ontario.
http://www.naisa.ca/deepwireless/

Elektra. (2002-ongoing). Festival of new electronic music Montreal, Quebec.
http://www.elektrafestival.ca/english/main.html

Mutek. (2000-ongoing). International festival of music, sound, and new technologies. Montreal, Quebec.
http://www.mutek.ca/

Send+Receive (1999-ongoing). A festival of sound and new media. Manitoba, Winnipeg.
http://www.myspace.com/sendandreceive
http://www.sendandreceive.org/

Radio Revolten. (n/a). Radio arts festival. Halle, Germany.
http://www.radiorevolten.radiocorax.de/cms/

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